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This Month's Cover

NEWARK

Rallying point for Independence Day ceremonies, a liberty pole stands at the center of the cover lithograph of Newark, N. J., as seen in 1847 from the north, looking across the Passaic River. Printed by F. Michelin, the picture was published by the artist, E. Whitefield, a Canadian. It was loaned through the courtesy of the Newark Public Library. . . . Appropriately, since the city was named to honor a Puritan pastor who had been born in Newark-upon-Trent, England, the lithograph shows at left the spires of Newark's First Methodist, Grace, and First Presbyterian churches. Just a little to the right of center rises the steeple of Trinity Church, built in 1805. Chuff-chuffing in the middle ground at right is an 1847 locomotive. . . . Historically, Newark was a Puritan settlement, established in 1666 by seceding New Haven colonists under Robert Treat. . . . When it was chartered a city in 1836, Newark boasted a population of 19,732 persons. In 1933 it had 447,000. In 1846, a year before the cover print was published, the American Insurance Company was established there. In 1933 sixteen insurance companies had home offices in Newark. . . . Today largest of New Jersey cities, Newark (aerial view above) is eighteenth largest in the United States. It has its own port, one of the finest public libraries in the country, and a system of parks. Close to the great New York market, lying athwart roads from nearby iron and coal fields, it is predominantly an industrial city. Among its manufactures are electrical machinery, paints and varnishes, beer, chemicals, and leather. Patent leather was invented there, and in the attic of a church rectory the Rev. Hannibal Goodwin invented flexible film, Newark's gift to Hollywood. Newark airport is a terminal for mail and passengers.

DUN'S REVIEW

for

SEPTEMBER, 1939

R. I. NESMITH & ASSOCIATES

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Etching by Martin Lewis (Courtesy Kennedy & Co.)

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Editor of DUN'S REVIEW

¶ For those interested in the prints of century-old cities appearing on the covers of DUN'S REVIEW, the publishers have arranged to provide mounted copies suitable for framing. Not all back numbers are available. Those on current issues may be had on 13½ x 14¾-inch French mats, $1; mounted and framed with glass, $3. Add sales tax if in New York City. . . . ¶ Information about subscription rates will be found on page 49. . . . ¶ Second cover photograph by Fairchild Aerial Surveys, Inc. Frontispiece: This etching by Martin Lewis portrays a small dreaming boy, enthralled by a train in the hollow at river's edge, while behind and above him twists a dead, three-fingered tree, victim of years spent in smoke from the pit below.

Martin Lewis

I. United States Total Inventory Values and Trends from the Beginning of 1936 to the Middle of 1939

	January 1, 1936	January 1, 1937	January 1, 1938	July 1, 1938	January 1, 1939	July 1, 1939
Estimated Values—Millions of Dollars						
RETAILING	4,416[1]	4,717	5,033	4,852	4,757	4,985
WHOLESALING	2,054[1]	2,368	2,543	2,416	2,365	2,426
MANUFACTURING ..	8,653[2]	9,951	11,851[3]	10,938	10,543	10,406
Index of Trends—January 1, 1936 = 100						
RETAILING	100	107	114	110	108	113
WHOLESALING	100	115	124	118	115	118
MANUFACTURING ..	100	115	137	127	122	120

[1] *Census of Business—1935.*
[2] *Census of Business—1935* and *Statistics of Income—1935.*
[3] The corresponding figure in the *Biennial Census of Manufactures—1937* is less than this total for January 1, 1938, by $1,837 million, because the Census is based on number of plants while Dun & Bradstreet estimates are based on concerns as corporate units.

CURRENT TRENDS *in* INVENTORIES —A MID-YEAR SURVEY

A DUN & BRADSTREET, INC., RESEARCH AND STATISTICAL DIVISION PROJECT, DIRECTED BY WALTER MITCHELL, JR.

In this report on the fourth of a series of inventory surveys, estimated trends of holdings in more than 80 industries and trades are carried forward from the beginning of 1936 to the mid-point of the current year. The survey was conducted under the general direction of Dr. Willard L. Thorp, Director of Economic Research. Questionnaire returns were edited and tabulated under the supervision of Fernley G. Fawcett.

INVENTORY holdings, which the business man individually can decide to build up or decrease, constitute both a danger and a source of flexibility in our economic system. Because of this the inventory problem is becoming for business men a matter of increasing interest and study.

Whether the decision to spend is made at the consumer's family dining table or the corporation directors' table, the money released is the locomotive which pulls the distribution and production train. The retailer, hitched directly behind, is the first to feel the added pull of increased consumption. Initially some of this change to a faster pace in the flow of distribution is absorbed by depletion of inventories—which form the flexible linkage. But eventually the impulse is relayed back through wholesalers (or directly) to manufacturers of finished goods, and thence to raw material producers and the builders of machinery and equipment.

As in the case of a long freight train, considerable slack may be accumulated in these inventory couplings. Conversely, when the brakes are applied to spending, they unfortunately don't take hold promptly all the way back to the caboose. Wholesalers and manufacturers continue for some time to put pressure on the retailer's back door, in the form of shipments for which commitments were made when signals showed green far ahead. Our troubles seem to come when the back end of the train tries to anticipate the changes in speed or when the draw-bar in the inventory coupling allows so much slack as to shake us all up thoroughly.

The twelve-month period ended July 1, 1939, appears to have been largely

free of these customary jolts. It was an era of caution in the management of inventory, such as might be expected of a business public with fingers still tender from 1937 inventory burns. Regardless of whether the contrast is drawn over a six-month or a twelve-month period, the maximum change in value of stocks held in any of the three broad fields of business—retailing, wholesaling, and manufacturing—is 5 per cent.[1]

PERCENTAGE CHANGES IN VALUE OF INVENTORY HOLDINGS

	July 1, 1938 to July 1, 1939	January 1, 1939 to July 1, 1939
RETAILERS	+2.4	+4.8
WHOLESALERS	−0.2	+2.8
MANUFACTURERS	−4.5	−1.3

This is in marked contrast to the rapid inventory increases recorded during 1936 and 1937 (table 1 and chart I).

This relative stability of inventory holdings as a whole does not seem unreasonable during a period when production and consumption moved along at a fair pace and more closely in step with each other than is common among such rugged individualists as economic indexes. For instance, the Federal Reserve Board's Index of Industrial Production is here charted on the same gridwork (chart II) as the U. S. Trade Barometer, published regularly in DUN'S REVIEW (see pages 30-36). From these indexes it appears that production advanced more rapidly than consumer spending during 1935 and 1936, fell more precipitously than the spending curve at the close of 1937, and started its recovery more suddenly in the middle of 1938. However, the rapid rise of the consumer spending index in the last quarter of 1938 very nearly paralleled the production index and since that time the two curves have moved approximately together.

Are inventories larger than required for the volume of business being transacted? That is a frequent question and a direct, simple answer would be helpful. But a specific "Yes" or "No" is not possible for a double reason. Except by the study of the inconstant history of inventories we have no way of determining their "normal" volume in relation to volume of business. Secondly, the inventory requirements of each enterprise are necessarily a matter of individual judgment.

Inventories are larger now, relative to the volume of sales, than at the start of 1936; yet business at present is not enjoying the lusty growth which characterized 1935 and 1936. Inventories advanced more rapidly than sales during 1936 and 1937, but during the 1938-1939 period have not been depleted to an extent that would bring them in line with the 1935 ratios—which may, of course, have been too low. These observations obviously do not apply to all industries and trades, but may encourage careful study of any plans to buy beyond current requirements, in so far as human judgment can draw the fine line between probability and hope.

Changes in value of inventory holdings may be the result of changes either in prices or the physical volume of goods on hand. Wholesale price indexes suggest that in the field of manufacturing the small decline in total inventory values was largely a matter of price, at least during the first half of 1939. The combined wholesale price index[2] for all manufactured commodities and raw materials declined by 1.4 per cent during the latter half of 1938 and by another 1 per cent during the first half of 1939. If we assume that the assortment of goods held by manufacturers is about the same as the assortment used in weighting the price index, the physical volume of goods on hand July 1 would appear to be almost exactly the same as it was six months earlier, and only 2 per cent smaller than in July, 1938. Under the same assumption the physical volume of wholesalers' stocks would appear to be about 4 per cent larger at the beginning of July than it was on January 1 and about 2 per cent larger than in July, 1938.

This assumption cannot be applied with quite the same validity to retailers' inventories since retailers' prices commonly do not move up or down so rapidly or violently as the more sensitive wholesale prices, and no general index of retail prices is available. However, the several indexes of retail prices of specific types of goods seem to indicate that, with the exception of a large decrease of more than 3 per cent in food prices, retail price levels have declined approximately 1 per cent in the twelve months ended July 1, 1939. To the extent that this is true, unit additions to retailers' holdings are only slightly

II. PROPORTION OF CONCERNS HAVING INVENTORY INCREASES, BY SIZE OF CONCERN

SALES VOLUME	CONCERNS WITH INCREASES from July 1, 1938 to July 1, 1939 *Per Cent*	from Jan. 1, 1939 to July 1, 1939 *Per Cent*
RETAILING	57	60
$100,000 and over	50	59
$50,000 to $100,000	55	59
$30,000 to $50,000	58	61
$20,000 to $30,000	60	62
$10,000 to $20,000	64	65
WHOLESALING	53	60
$500,000 and over	49	61
$300,000 to $500,000	46	58
$200,000 to $300,000	55	62
$100,000 to $200,000	51	60
$50,000 to $100,000	55	64
Less than $50,000	65	56
MANUFACTURING	51	55
Over $10,000,000	31	45
$1,000,000 to $10,000,000	49	55
$500,000 to $1,000,000	45	57
$200,000 to $500,000	52	57
$100,000 to $200,000	54	53
Less than $100,000	58	55

[1] Survey computations give "Census weights" to the various sizes of concerns in each trade, preventing the experience of a few large concerns among the contributors from concealing the little man's story.

[2] U. S. Bureau of Labor Statistics.

larger than indicated by the recorded dollar increase.

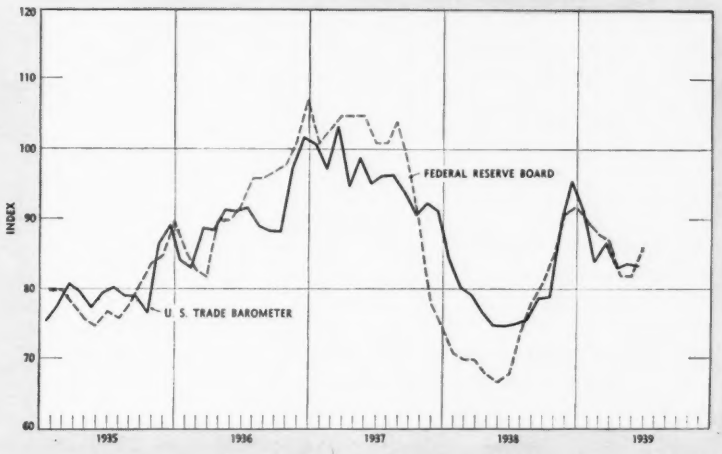
The data presented in our tables are in the form of index numbers, with inventories at the beginning of 1936 rated as 100 and inventory values since that date expressed as percentages of that base. In these terms inventories of practically every industry and trade started the second half of 1939 at levels substantially above the beginning of 1936. The base chosen for these indexes should not be interpreted as an assumption that stocks on hand at the beginning of 1936 were "normal." They may have been too low, but no evidence is available to suggest that the higher inventories of a later date constitute a more logical basing point.

Two other cautions should be kept in mind in examining these figures. The survey is one of a series of flashlight photographs of inventories at six- and twelve-month intervals. Although everyone in this snapshot may be seated in the same position each time the picture is taken, the photographer has no evidence to offer that no one moved between exposures. However, available monthly indexes[3] of the physical stocks of various commodities suggest that most of the changes occurring during the past twelve months have been gradual and continuous—after due allowance for seasonal fluctuations. The majority of these indexes show a valley or peak about the middle of 1938, with gradual increases or decreases in holdings since that date. Slight declines occurred in stocks of building materials and in the majority of raw materials, while indexes of manufactured goods stocks have no majority tendency. The net conclusion is that the flashlight scene as of July, 1939, can safely be compared with the picture six and twelve months earlier.

This does not mean that trends in value of inventories held by members of a particular industry can properly be compared with the trend of unit holdings of any one commodity which they may make or use. For instance, there is not necessarily a logical relation between the monthly reports on the number of "pneumatic casings in stock" and the dollar value of inventories held by the industry labeled "Tires and Other Rubber Goods." Total dollar values, not amounts of specific com-

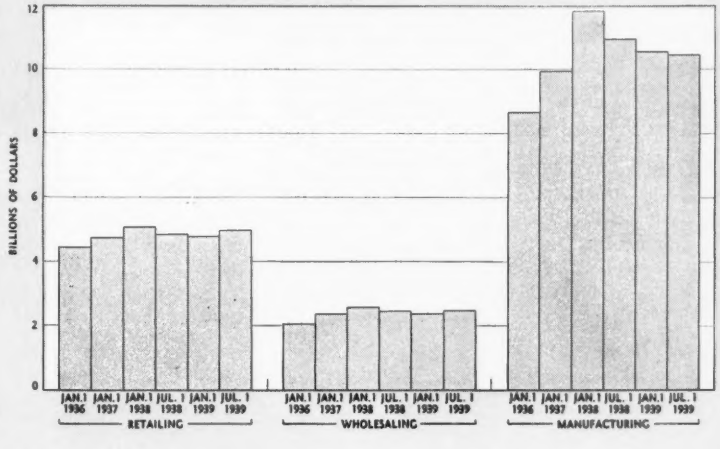
II. PRODUCTION AND SPENDING SINCE 1935

(Federal Reserve Board Index of Industrial Production compared with the U.S. Trade Barometer starting from a common level, 1935=80.1. Both indexes are adjusted for seasonal variation.)



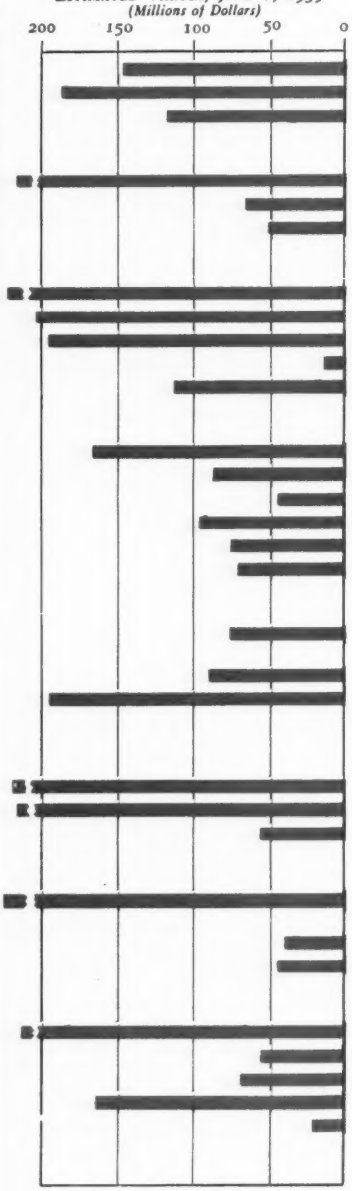
I. UNITED STATES TOTAL INVENTORY VALUES FROM THE BEGINNING OF 1936 TO THE MIDDLE OF 1939

(Dollar Estimates, data from table 1)



[3] Published in *Survey of Current Business*, United States Department of Commerce; twenty commodities and sources of data: Hosiery, National Association of Hosiery Manufacturers; Knitted Underwear, Underwear Institute; Wrapping Paper, American Paper and Pulp Association; Leather, United States Department of Commerce; Tires, Rubber Manufacturers' Association; Gasoline at Refineries, United States Department of the Interior; Anthracite, Anthracite Institute; Lumber, National Lumber Manufacturers' Association; Cement, United States Department of the Interior, Bureau of Mines; Common Brick, United States Department of Commerce; Vitrified Paving Brick, United States Department of Commerce; Copper, Copper Institute; Tin, Commodity Exchange, Inc.; Lead, American Bureau of Metal Statistics; Ethyl Alcohol, United States Treasury Department; Crude Rubber, Rubber Manufacturers' Association; Silk, Commodity Exchange, Inc.; Iron Ore, Lake Superior Iron Ore Association; Bituminous Coal (industrial), National Bituminous Coal Commission; Crude Petroleum (East of California), United States Department of the Interior.

III. Retailers' Inventory Trends
from the Beginning of 1936 to the Middle of 1939



* Indicates in dollar value of inventories the relative importance of each trade.

Retail Trades	Index of Changes in Dollar Value (January 1, 1936 = 100)					Estimated Values, July 1, 1939
	Jan. 1, 1937	Jan. 1, 1938	July 1, 1938	Jan. 1, 1939	July 1, 1939	*Millions of Dollars*
FOOD						
Groceries (Independent)	103	104	105	107	110	149
Groceries and Meats (Independent)	103	103	105	102	104	187
Groceries and Meats (Chains)	96	94	84	89	88	119
FARM SUPPLIES, GENERAL STORES						
Country General Stores	107	113	113	110	111	255
Farmers' Supply Stores	120	127	118	124	120	66
Farm Implements	136	158	167	157	154	52
GENERAL MERCHANDISE GROUP						
Department Stores (Independent)	108	104	94	96	100	343
Department Stores (Chains)	118	116	123	111	125	206
General Merchandise	109	116	118	113	115	197
Variety Stores (Independent)	104	112	121	112	128	14
Variety Stores (Chains)	110	109	114	102	113	114
APPAREL GROUP						
Men's Clothing	113	124	122	111	118	166
Women's Ready-to-Wear (Independent)	114	125	123	124	129	88
Women's Clothing (Chains)	119	117	..[1]	115	123	45
Family Clothing	112	127	125	118	121	97
Shoes (Independent)	106	116	119	116	121	74
Shoes (Chains)	108	120	111	99	110	70
FURNITURE, HOUSE FURNISHINGS						
House Furnishings	107	109	104	105	109	74
Radio, Electric, and Gas Household Appliances	121	126	120	113	120	89
Furniture	111	123	117	116	119	195
LUMBER, BUILDING MATERIALS, AND HARDWARE						
Lumber and Building Materials	109	120	118	118	123	288
Hardware	106	115	116	113	116	221
Hardware and Farm Implements	112	125	131	124	125	56
AUTOMOTIVE PRODUCTS						
Motor Vehicle Dealers	101	143	118	118	137	535
Automobile Accessories and Parts (Independent)	114	128	139	132	142	40
Automobile Accessories and Parts (Chains)	119	127	..[1]	124	154	46
ALL OTHER						
Drug Stores (Independent)	106	113	114	115	116	242
Drug Stores (Chains)	108	116	101	109	103	57
Coal and Other Fuel	118	126	121	117	113	69
Jewelry	106	118	114	116	115	165
Stationery	108	115	115	117	117	22
All Other Retail	..	..	..	..	..	644
ALL RETAILING	107	114	110	108	113	4,985

[1] Not available.

modities, have been reported by the corporations. A number of those best known to the public as tire manufacturers also make such a diversified line of other rubber and related goods that tires may constitute less than half the value of their inventory holdings.

The second important caution is that the six-month trend figures may show seasonal movements as well as business trends, a confusion which does not occur in the comparison between July 1, 1939, and July 1, 1938. If such surveys as the present one are continued over a period of years it will be possible to say which industries normally have higher or lower stocks in July than in January. At present it is possible only to cite a few likely instances on the basis that inventory changes during the first half of 1939 were similar to those which occurred in the first half of 1938; and that these changes were in accord with known seasonal characteristics, such as:

ASSUMED NORMAL TRENDS OF INVENTORY DURING FIRST HALF YEAR

RETAILING	
Farmers' Supply Stores *Downward*	Seasonal supplies of feed and fertilizer are built up in Winter and sold off during Spring planting.
Variety Stores *Upward*	Summer holiday trade requires more stock on hand than the post-Christmas slump.
Automobile Accessories *Upward*	Summer is more popular than Winter, both for motoring and for tinkering.
Coal and Other Fuel *Downward*	Even where ice is handled to balance Winter business, inventory is smaller.
MANUFACTURING	
Baking *Downward*	Flour stocks are purposely kept low in Summer to avoid spoilage.
Agricultural Machinery *Downward*	A large part of the season's production is already in the hands of dealers or farmers.
Automobiles *Downward*	The runs of old models are nearly finished; materials for new models are not stocked until later.
Automobile Parts and Accessories *Downward*	Similar to automobiles except that the inventory valley is reached sooner.

Doubtless other lines are just as seasonal as the ones listed above, but the normal seasonal trend has been obscured in one or both of the last two years by long-term trends. No convincing evidence of seasonal trends in wholesalers' inventories appears from the survey figures, but such cycles doubtless exist. Further, there is a sizable group of clothing and textile trades having two seasons annually. Inventories on January 1 and July 1 may be about the same, showing nothing of the magnitude of the seasonal hump or valley in between.

The reader of this report should be amply protected by the foregoing cautions and by the automatic safety device bearing on the use of all business statistics. The business man is not likely to misinterpret statistics for the industry he works with and knows best. Conversely, he is not likely to suffer any material damage from the misleading aspects of figures on industries where he has no stake and knows little.

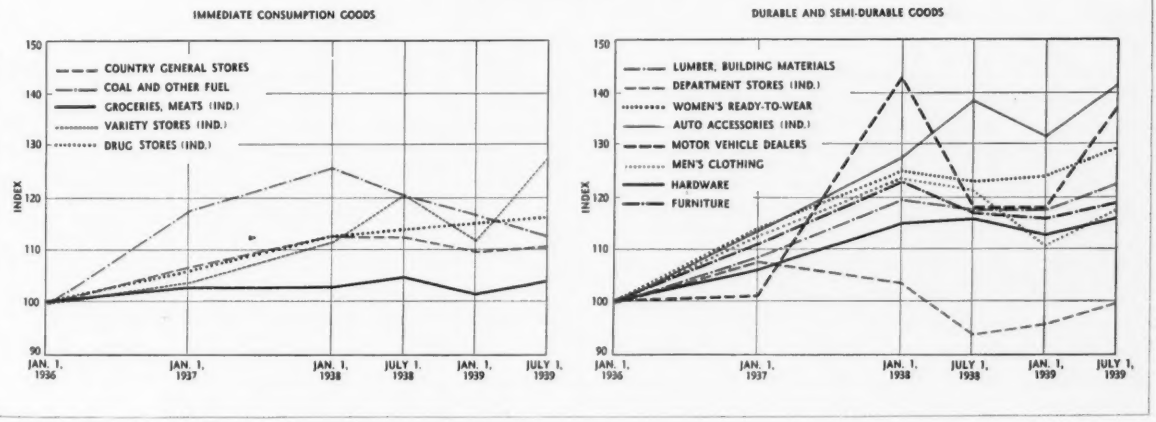
Retailing

As is true at every stage along our economic line of march not all trades and industries behave alike. Some are conspicuous by leading the parade; others equally conspicuous by marching off in the opposite direction; while those that march at the average pace enjoy a comfortable anonymity. The most usual story, told by groups of independent retailers in 12 out of 24 trades analyzed, was of inventory reduction during the latter half of 1938, followed by expansion in the first half of 1939 (table III). The same was true in 3 of the 5 trades for which continuous chain store data are available. In the majority of these instances, the two movements approximately balanced

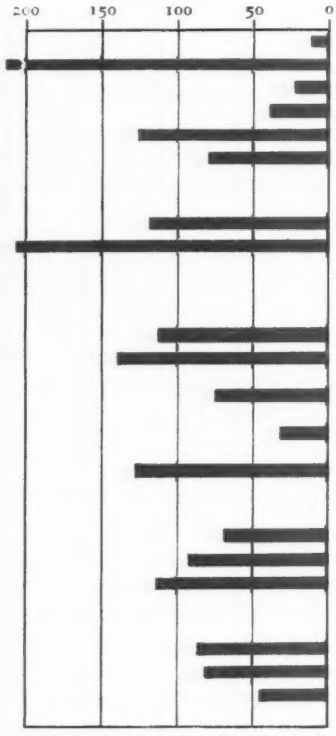
A country general store, like time, brings all things. It is not surprising, in the charted inventory story of immediate consumption goods, to see its line behaving like an average of all the others.

III. INVENTORY TRENDS IN SELECTED RETAIL TRADES FROM THE BEGINNING OF 1936 TO THE MIDDLE OF 1939

(Index numbers, Jan. 1, 1936=100)



IV. Wholesalers' Inventory Trends from the Beginning of 1936 to the Middle of 1939



* Indicates in dollar value of inventories the relative importance of each trade.

WHOLESALE TRADES	Index of Changes in Dollar Value (January 1, 1936 = 100)					Estimated Values, July 1, 1939
	Jan. 1, 1937	Jan. 1, 1938	July 1, 1938	Jan. 1, 1939	July 1, 1939	*Millions of Dollars*
FOODS AND BEVERAGES						
Confectionery	116	134	144	132	131	10
Groceries	112	116	107	109	108	285
Meat and Fish	118	111	95	122	124	21
Produce and Fruit	107	103	102	114	97	38
Alcoholic Beverages	126	145	140	149	156	123
Other Food and Grocery Specialties	115	152	161	147	142	78
DRY GOODS AND APPAREL						
Clothing, Furnishings, and Shoes	111	125	121	113	122	117
Dry Goods (General Line)	117	133	120	106	112	205
LUMBER, BUILDING MATERIALS, AND HARDWARE						
Lumber, Millwork, Other Building Materials	115	141	136	136	138	111
Hardware	116	117	115	107	115	139
DRUGS	105	116	114	112	105	72
PETROLEUM, PETROLEUM PRODUCTS	103	116	100	108	95	30
AUTOMOTIVE EQUIPMENT	115	126	124	123	128	127
SUPPLY HOUSES						
Plumbing and Heating Supplies	109	119	118	111	118	67
Machinery and Equipment	116	138	136	132	134	92
Other Miscellaneous Supplies	109	120	119	116	120	113
ALL OTHER						
Electrical Goods and Appliances	135	168	149	131	145	86
Paper and Paper Products	107	117	111	107	112	80
Tobacco Products (except leaf)	109	114	112	108	112	44
Other Wholesaling	..	..	..	..	..	588
ALL WHOLESALING	115	124	118	115	118	2,426

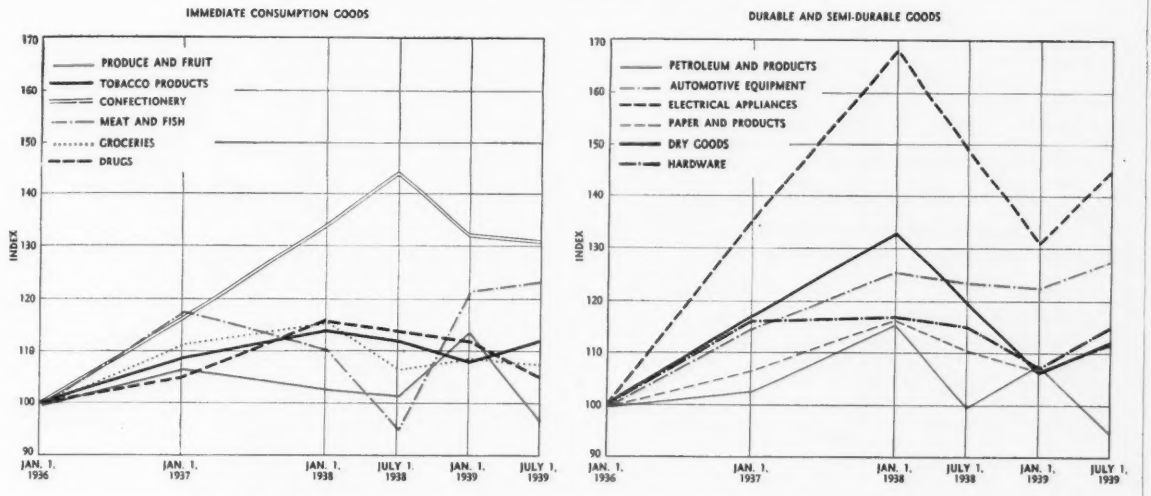
out. Definite trends were reported in only a minority of the trades. Two retail trades, coal and farm implements, report smaller inventories on July 1, 1939, than six months or a year earlier. Conversely, seven trades: independent groceries, variety and department stores, house furnishings, women's ready-to-wear, lumber, and motor vehicle dealers held even or increased stocks throughout the twelve-month period. Large retailers less frequently built up stocks during this period than small concerns, but in the six months' comparison there is no noticeable difference in the experience of large and small organizations (table II).

In 7 trades separate data for chain stores have been compiled. In every instance inventory adjustments of chains were far more violent than those of their independent brothers and in many cases were in opposite directions. Except for drug stores and combination grocery and meat stores, stocks of chains followed the popular increase from January to July. From these data alone, it is impossible to judge whether the cause of the difference in inventory policies of chains and independents is different sales experiences or different methods of stock control.

The trend of department store inventories may be no clue at all to the behavior of stocks held by other trades (chart III). They followed the prevailing uptrend during 1936, but pursued an independent, and largely contrary, course as compared with other retail stocks during the intervening period. This is particularly significant since the monthly index of department store inventories published by the Federal Reserve Board is the only one available in the retail field, and

IV. Inventory Trends in Selected Wholesale Trades
from the Beginning of 1936 to the Middle of 1939

(*Index numbers, Jan. 1, 1936=100*)



Inventories of consumption goods commonly turn rapidly and their sales are less affected by business cycles than those of durable goods; their inventories reflect cycles less and specialized influences more.

the temptation is strong upon business men and statisticians to rely heavily upon it for all retail trade. The other striking feature is the wide gyration of motor vehicle dealers' stocks, from a high peak in January 1938 to a relatively low position after last year's used-car campaign, with a swing back almost to the peak position by July 1939. With these two exceptions trades handling durable and semi-durable consumer goods have had surprisingly similar inventory experiences during the past three and a half years—rapid increases during 1936 and 1937, followed by a falling off in the following 18 months, but returning about to earlier highs.

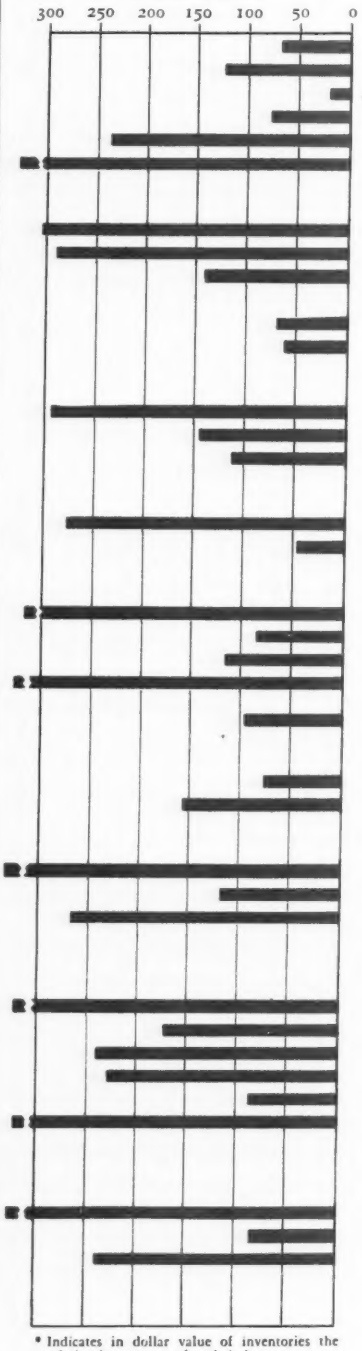
Wholesaling

Whereas the estimated total dollar value of all wholesalers' inventories was about the same on July 1, 1939, as it was a year earlier, the stocks of some trades showed their individuality (table IV). Only two trades increased their value of inventories in a significant degree between July 1, 1938, and July 1, 1939: Alcoholic Beverages by 11 per cent and Automotive Accessories by 3 per cent. The inventory changes for meat and fish, and produce and fruit dealers were less significant because of their well-known rapid turnovers and their small dollar values. Six wholesale groups reduced dollar value of stocks by a noticeable percentage: Miscellaneous Food and Grocery Specialties, 12; Confectionery, 9; Drugs, 8; Dry Goods, 7; Petroleum and Products, 5; Electrical Goods, 3. The other nine wholesale trades started July 1939 with inventories about on a level with July 1938, differences 1 per cent or less.

Three of the six instances of decrease, confectionery, miscellaneous foods, and drugs, were continuations of inventory curtailment which had also been in progress during the latter half of 1938. Only the wholesale liquor trade reported a significant, consistent inventory uptrend during both of the six month periods. During the latter half of 1938 the prevailing trend was downward, with 13 of the 19 trades curtailing stocks. The opposite was true of the first half of 1939, when 13 of the 19 trades analyzed added to the value of stocks on hand, 8 of them at a rate of more than 4 per cent. In general, large wholesalers seem to have been slightly less enthusiastic than the small houses, in the matter of building up inventories (table II). With the exception of the wholesale produce, grocery, drugs, and petroleum lines, every other wholesale trade finished the first half of 1939 with at least 12 per cent larger stocks than were held at the beginning of 1936.

Chart IV, showing the history of inventories of several important wholesale trades since January 1, 1936, serves to emphasize the necessary relation between inventory management, the product, and the market. Wholesalers of relatively non-perishable goods such as automotive parts, dry goods, tobacco, hardware, paper and drugs are all much alike as to the inventory trends reported during this three and one-half year period, while wholesale stocks of

V. Manufacturers' Inventory Trends from the Beginning of 1936 to the Middle of 1939



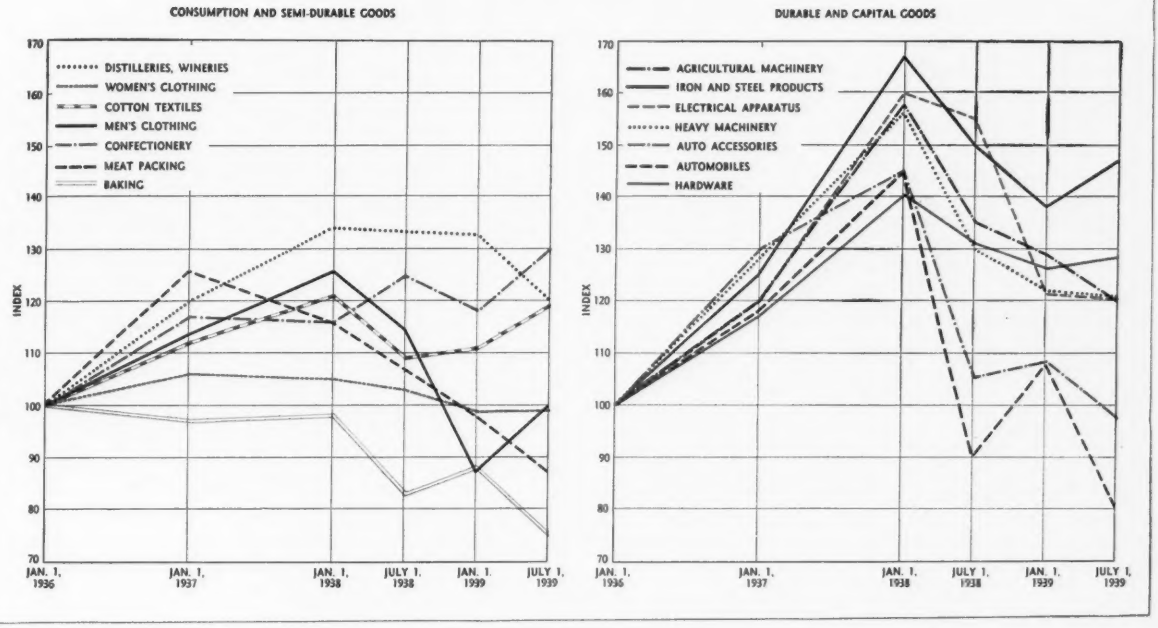
* Indicates in dollar value of inventories the relative importance of each industry.

Manufacturing Industries	Index of Changes in Dollar Value (January 1, 1936 = 100)					Estimated Values, July 1, 1939
	Jan. 1, 1937	Jan. 1, 1938	July 1, 1938	Jan. 1, 1939	July 1, 1939	*Millions of Dollars*
FOOD						
Baking	97	98	83	88	75	65
Distilleries and Wineries	120	134	..[1]	133	120	123
Beverages, Non-Alcoholic	147	171	177	179	160	19
Confectionery	117	116	125	118	130	78
Meat Packing[2]	126	117	..[1]	98	87	239
Other Food Manufacturing	128	145	139	143	141	633
TEXTILES AND CLOTHING						
Woolen and Worsted Goods	109	110	91	95	104	303
Cotton Textiles	112	121	109	111	119	290
Men's and Boys' Clothing and Furnishings	114	126	115	87	100	139
Women's and Children's Clothing and Furnishings	106	105	103	99	99	69
Hosiery	104	113	116	105	124	60
FOREST PRODUCTS						
Lumber and Planing Mill Products	108	127	121	126	123	294
Furniture	106	117	114	112	118	146
Other Forest Products	112	137	120	135	135	113
PAPER AND PAPER PRODUCTS						
Paper and Paper Products (except boxes)	110	136	130	124	121	278
Boxes, Paper	103	113	107	103	98	47
CHEMICALS, DRUGS, PETROLEUM						
Industrial Chemicals and Chemical Products	110	141	136	121	117	380
Drugs, Perfumes, and Cosmetics	122	142	135	124	118	84
Paints, Varnishes, and Lacquers	110	128	119	113	117	115
Petroleum Refining	100	118	119	114	114	501
SHOES	111	124	111	98	111	96
STONE, CLAY, AND GLASS PRODUCTS						
Stone and Stone Products	105	121	110	109	104	74
Clay and Glass Products	114	132	118	113	112	157
IRON AND STEEL						
Iron and Steel Manufacturing	114	149	129	137	125	1,003
Iron and Steel Products	125	167	150	138	147	116
Hardware	117	140	131	126	128	266
MACHINERY, ENGINES, AND TRANSPORTATION EQUIPMENT						
Electrical Apparatus and Appliances	120	160	155	121	120	418
Agricultural Machinery	120	158	135	129	120	172
Automobiles	118	145	90	108	80	240
Automobile Accessories and Parts	130	145	105	108	97	229
Office and Business Machinery	135	165	144	151	153	88
Heavy Machinery (Engines, Turbines, Pumps, etc.)	128	156	130	122	121	427
MISCELLANEOUS						
Non-Ferrous Metal Products	111	145	129	133	138	559
Jewelry	95	108	102	94	110	85
Tires and Other Rubber Goods	126	142	137	114	118	241
Other Manufacturing	..	..	..	..	..	2,259
ALL MANUFACTURING	115	137	127	122	120	10,406

[1] Not available. [2] Index for November 1, rather than January 1, because that is usual fiscal closing date.

V. Inventory Trends in Selected Manufacturing Industries from the Beginning of 1936 to the Middle of 1939

(Index numbers, Jan. 1, 1936=100)



In manufacturing even more than in wholesaling inventory fluctuations of durable goods held to a consistent pattern while those of consumption goods exhibited more marked independent tendencies.

immediate consumption goods moved in widely variant ways.

Manufacturing

Manufacturing industry as a whole reported a smaller total value of inventories on July 1, 1939, than six or twelve months earlier. In terms of specific industries, however, only half of the 35 lines report inventory decreases during the first half of 1939, while the others were increasing stocks. During the latter half of 1938, 21 of these 35 industries had reduced their stocks on hand (table V).

The net result of these shifting trends was that 21 industries reported smaller inventory valuations on July 1, 1939, than they held twelve months earlier. Four industries stand out as exceptions to this general trend, the survey sample reporting substantial increases of inventory valuations during the latter half of 1938 and again during the first half of 1939. These are woolen and worsted goods, cotton textiles, office machinery, and non-ferrous metals. The only other substantial net increases of inventory value in the twelve months ending July 1, 1939, occurred in the following manufacturing lines: hosiery, miscellaneous forest products, and jewelry.

At the other extreme are 7 industries whose mid-1939 dollar inventories are smaller than they were at the beginning of 1936, despite the fact that the total of all manufacturers' stocks has landed on a perch 20 per cent higher. Bakers' inventories never followed the general uptrend in 1936 and 1937, shrank sharply in the first half of 1939. No adequate figures on meat packers' stocks are available for July 1938, but holdings last fall were below January 1936 and have shrunk since. Inventory values in the men's clothing, women's ready-to-wear, automotive accessories, and paper box industries have retreated to just about 1936 opening levels, while

(Continued on page 44)

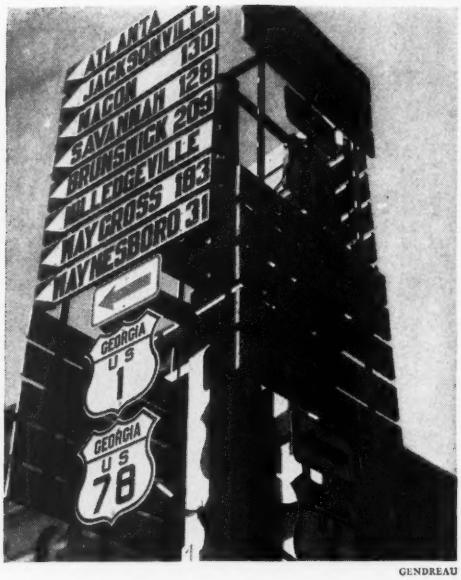
THE SURVEY SAMPLE

This most recent survey, carrying estimates of inventory trends forward to July 1, 1939, represents an analysis of 8,000 returns from mailed questionnaires, supplemented by about 1,000 personal interviews between executives of large concerns and Dun & Bradstreet, Inc., reporters in all principal cities of the United States.

Summary Analysis of the Sample

	Concerns	Estimated Sales, 1938	Share of U. S. Total
	Number	*Thousands of Dollars*	*Per Cent*
Retailing	4,853	3,482	9.8
Wholesaling	1,387	805	4.0
Manufacturing	2,750	7,237	14.9
Total	8,990	11,524	11.1

A detailed analysis of this sample of concerns by trades will be supplied gladly upon request.



GENDREAU

Southern accent on transportation—an Atlanta, Ga., signpost points the highways, helping to meet a basic demand.

FACTORS GOVERNING CHANGES *in* DOMESTIC AUTOMOBILE DEMAND

CHARLES F. ROOS *and* VICTOR VON SZELISKI

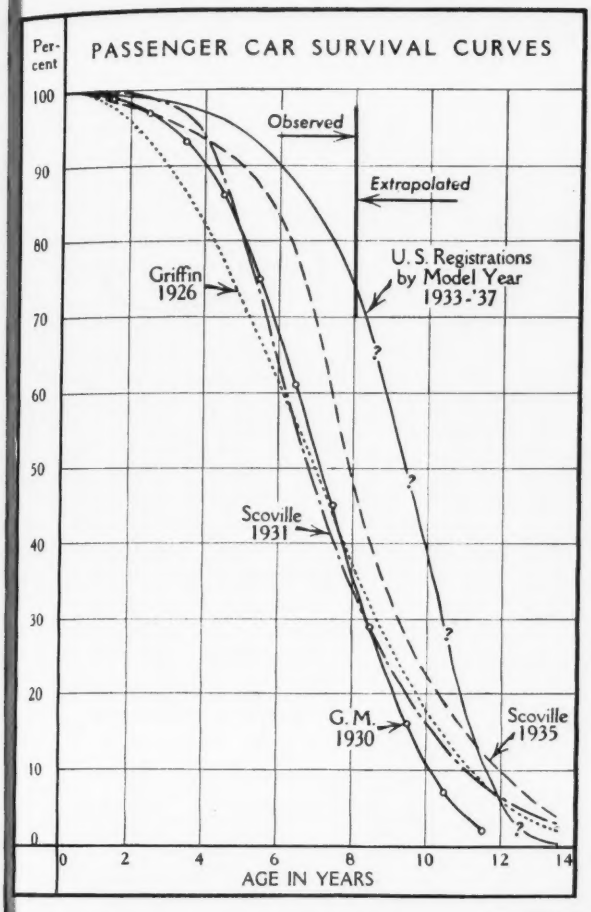
IN ONE YEAR automobile dealers may sell four million passenger cars to United States consumers; in another, one and one-half million. What are the "causes" of these sales variations, and what is the relative importance of each "cause"? An analogous question in the domain of physics or chemistry would be answered without much difficulty; experiments would be set up in which various factors would be varied one at a time, definite and exact techniques would be followed, and the answers would emerge with clarity and precision.

But this controlled experimentation method is not available in economics, and hence the difficulty of getting clean-cut answers. What can be done is this: (1) select the factors which are probably of major importance for passenger car demand (a task only for those actively associated with the industry), (2) form a picture of how these factors interact with each other to produce automobile purchases, and translate this into a general mathematical equation (an unavoidable complication, but how else deal with a numerical problem?), (3) fit this equation to the available statistical material. If the equation, when concrete values of the presumed causal factors are introduced into it, closely parallels the sales which have actually occurred, the separate parts of the equation should give tolerably accurate pictures of how each "cause" affects sales.

Controlling Factors

Factors governing long-term and year-to-year changes in sales include: consumer income, cost of living, the number (and quality) of cars now in use, the pressure for replacement (scrapping), dealers' used car stocks, consumers' current installment contracts for their automobile purchases, dealers' working capital and short-term debt position, financing terms—down payment and number of installments. To be superimposed on the combined effects of those variables are the short-term factors of seasonal variation and the date of new model introduction, to cite only the most important ones which have a bearing on the monthly distribution of sales.

The results of this study of automobile demand seem to call for a revision of the idea of the importance of price in influencing the demand for consumers' goods, at least in so far as they are durable goods—as today many of them are. Price, though of some importance in explaining automobile sales, is clearly not a dominant factor. It appears, therefore, that the classical theory that business stability can be accomplished by rapid price adjustment,



Modern cars last longer, as the curves dated 1935 and 1933-1937 indicate. Griffin's 1926 study gave a survival period of between six and seven years, but later studies show this has extended to nearly nine years, almost a 50 per cent increase in the period of automobile life due to car and highway improvements.

applicable though it may be to a perishable and semi-durable goods economy, cannot validly be applied to the modern durable goods economy. For such theory disregards the most characteristic mark of durable goods—their durability.

The central point developed in the study is that the demand for new automobiles is a derived demand, since the primary demand is for transportation service. This is furnished by the total car population stock in consumers' hands, only a part of which consists of cars sold during any given year. New car demand may thus be considered as dependent upon consumers' decisions regarding the number and quality of the cars to be maintained in operation.

Purchases of new cars can be varied within wide limits without materially affecting the transportation service which consumers obtain from their car stocks. That is, the purchase of durable goods is dissociated from, or at least does not run parallel to, their consumption. The period of consumption, as in the case of automobiles, extends over a period of several years.

Dissociation is possible because of consumers' car stocks, which at times may be more than ample relative to consumers' demand for automobile transportation. These stocks, which are negligible for perishable and semi-perishable goods, are a major factor in durable goods demand. Their effect is to accentuate the cyclical movements in retail sales regardless of adjustments in price. To understand the problem therefore, one must start with consumers' car stocks or car population. New car sales are a secondary effect following from this.

Car Population

Consumers are thought of as continuously adjusting the number of cars in operation toward some particular car population called "the maximum ownership level" which varies with national income, durability of cars, cost of maintenance, and other influences. Thus the maximum ownership level is regarded as changing continually in response to the economic status of consumers and such other factors as car durability and price. Consumers are likewise thought of as adjusting the quality of the car population toward an optimum level by replacements.

The rate at which consumers adjust

When large groups go picnicking, they may travel by train or bus, but for a family the automobile furnishes transportation to suit the household whim.

GENOREAU

the car population toward the maximum ownership level and the optimum quality level depends upon both general and specific economic conditions. This concept of a variable ownership level appears to be of major importance in durable goods studies.

In order to measure satisfactorily the effect of the various factors governing changes in automobile demand, it is first necessary to formulate a working model of sales demand based on these four concepts. This requires the use of considerable mathematics, although after a theory has been so formulated and tested, the theory and the results can be described in non-mathematical terms.

A car population of twenty million almost new cars would represent a very large inventory of unused mileage and would give rise to but few replacement sales. On the other hand twenty million cars ten years old would be constantly requiring replacements. A measure of this pressure for replacements is furnished by the age distribution of cars, combined with experience tables for scrapping.

The chart on page 15 shows passenger car survival curves. They indicate the percentage of an original group of cars still in operation (still registered) after one, two, three, . . . years of service. One conclusion is obvious: cars now last much longer than formerly. Thus Griffin's study (1926) shows 50 per cent of the cars surviving between six and seven years, while the most recent study, based on 1933-1937 registrations, shows 50 per cent surviving about nine years. This is almost a 50 per cent increase in the period of survival, due chiefly to more durable construction—all-steel bodies, for instance—and also to improved highway and service facilities.

After passenger cars have passed their useful life, obviously they are ready to be scrapped. Figures are available to show the percentages of an original group of cars scrapped during the first, second, third, . . . years after introduction. A 1926 study (Griffin) shows a scrapping peak at seven years, and the latest registration experience curve at nine to ten years. However, registration data on cars more than eight years old are not reliable.

While the actual scrapping peak is only roughly known, it does appear that average car life has increased from six and one-half years in the 1920's to nine years at present. This is very important, since such increase represents a 25 per cent decrease in replacement requirements for a given car inventory, and a 25 per cent cut in the replacement cost of maintaining it. This has undoubtedly been a factor in enabling consumers to build their car stocks to a position well above the 1929 level, despite a much lower national income.

GENDREAU

A drive to the golf course, a trip to the store, vacations spent gypsying in some far State, or Sunday visits to friends; all these are the background and foundation of consumer demand for transportation.

The age distribution of cars both as constructed and observed from 1919 to 1938 has been calculated. By adding to these figures the expected replacements from each age group, it is possible to estimate replacement pressure. The number of cars in each age group is multiplied by the "death rate" for that age, and the products so obtained are added.

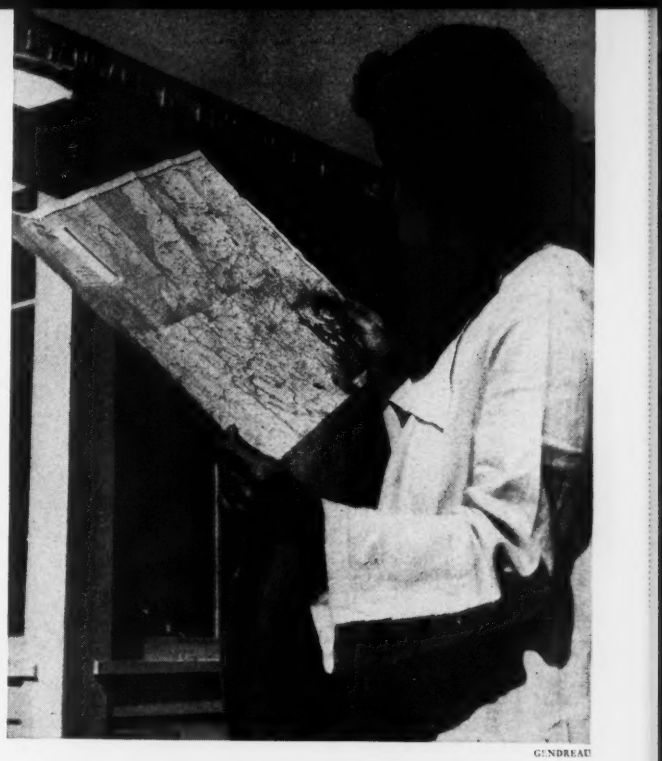
Since people tend to scrap more cars than indicated by theoretical scrapping in times of prosperity, and to scrap fewer cars than indicated in depressions,[1] it is necessary to include an income factor to explain replacement sales. In this study the Institute of Applied Econometrics uses "disposable income," composed of the following: Entrepreneurial savings, direct relief, soldiers' bonus, wages, salaries, dividends, interest, entrepreneurial withdrawals, rents, and royalties. The Institute subtracts from this total, social security and other direct taxes, that is: income and inheritance taxes, gift, dividend, and personal property taxes.

Exclusion of direct personal taxes from income is essential for studying the demand for goods. Failure to do so necessarily constitutes duplication. For example, Robinson has an income of $10,000, he pays a tax of $1,000 which the Government transfers to Jones as salary. The combined spendable income of the two is Robinson's $9,000 net after taxes plus Jones' $1,000, or only $10,000, not $11,000. Hence direct taxes are merely transfers of income; in no way are they additional buying power, and they should be eliminated in demand studies.

Since the cost of living is a price that

[1] Discussed by P. de Wolff in *Econometrica*, April, 1938.

In a flutter of maps the American, migratory descendant of immigrants, seeks new horizons —one thumb cocked warily over the horn.



GENDREAU

consumers consider in allocating their disposable income, it should have an influence on the sales of automobiles. But it is unrealistic to speak of consumers choosing between meeting necessitous or subsistence living cost and buying an automobile. Such living cost is actually on a par with taxes as a deduction from income. Only the balance after deduction of living cost and taxes is at the genuine choice of the consumer.

Disposable income less such deductions is defined in this study as "supernumerary income." Subsistence or necessitous living cost was determined as $200 per capita for 1923 and for other years the figure varies with the National Industrial Conference Board index of the cost of living. Using this factor of supernumerary income together with price and theoretical scrapping, a formula for replacement sales is obtained.

Supernumerary

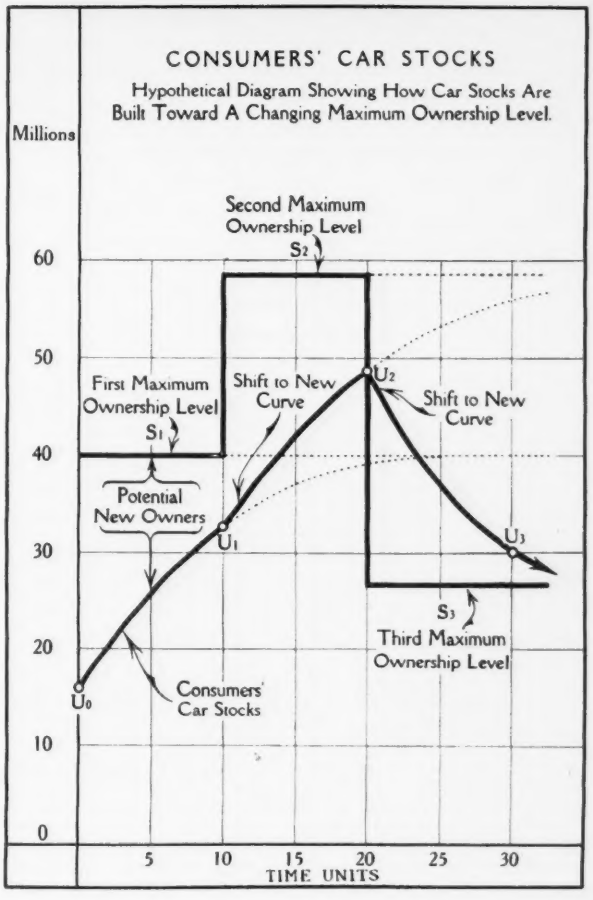
Supernumerary income is a much more interesting factor than one would suppose from its name. Webster defines supernumerary as ". . . exceeding a necessary, usual, or required number or quantity . . ." Such income is a much more sensitive indicator of the business cycle than is unadjusted national income. This is because the elements subtracted from national income —taxes (which are dependent upon past income) and the cost of living— usually rise more rapidly than income toward the end of a recovery period. Hence, supernumerary income, which is what remains after these deductions, slows up its advance or declines before national income. It is also more sensitive at bottoms in the business cycle. These facts are more apparent on a monthly chart than on a yearly one. Once national income turns down, supernumerary income may be pinched abruptly between decreasing national income and rising taxes and living costs. This is one reason why demand for durable goods drops so sharply at the onset of depressions.

Contrary to some past opinion, sales of cars to new owners cannot be satisfactorily analyzed apart from replacement sales. The amount of money that can be spent for additional cars depends somewhat on how much has to be spent for replacements.

In this study the idea of a variable ceiling or saturation point in new car sales depending on specific factors has been formulated and used for the first time. The changing maximum ownership level has been related to the number of families, and supernumerary income per capita, price, and durability or car life.

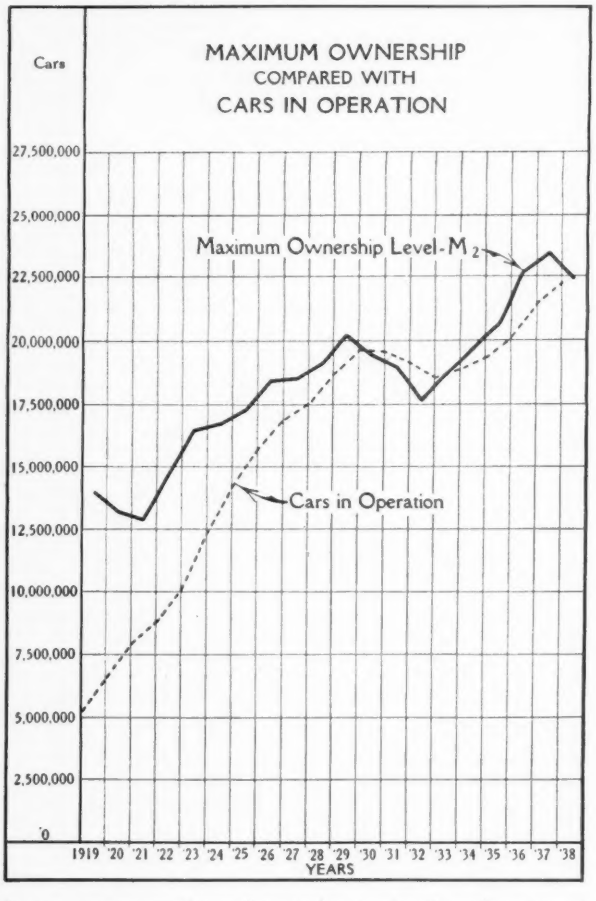
The chart at right shows schematically how consumers adapt their car stocks relative to this changing level. The car population in the first ten time-units is shown growing along the curve U_0 U_1 toward a maximum ownership level of 40,000,000 units. Then an increase in income or other factors raises the potential to 59,000,000 (second maximum ownership level) and a new period of growth takes place, between the time-units ten and twenty. It will be

The idea of a variable ceiling or saturation point in new car sales is used in this article. The changing maximum ownership level has been related to the number of families, real supernumerary income per capita, price, and car life. The difference between this level and the curve for cars in operation represents the number of potential new owners.



noted in the diagram that the difference between the actual car population and the first and second maximum ownership levels, represents the potential new owners. The car population shifts to a new curve U_1 U_2, rising during ten time-units toward the new ownership level. At the twentieth time-unit the maximum ownership level drops sharply to 28,000,000 (third maximum ownership level), and the car population begins to drop along the new curve U_2 U_3. Note that in this period there is an actual excess of consumer car stocks above the sustainable maximum ownership level, which excess must be liquidated, and the process is painful.

Now for an illustration. The chart at left shows a maximum ownership level derived from the data using the factors already referred to, and cars in operation. Cars in operation in 1919-1921 were well below the maximum ownership level, but growing rapidly toward it. In 1922 the sustainable ownership level rose sharply, and the car population entered a new cycle of growth. Its rate of increase accelerated, and it was built up rapidly toward the maximum ownership level, which it almost reached in 1929. At this point supernumerary income fell and the maximum ownership level dropped sharply below the actual cars in operation; and consumers failed to maintain their car stocks for three years. When the third level was reached, as in 1930, this quantity became negative; that is, the new owners' market became non-existent for all practical purposes, and remained so for some years thereafter.



In 1929 supernumerary income began to drop, causing the maximum ownership level to fall below the dotted line which represents cars in operation. There were too many cars in use, and the new owners' market practically vanished. Later, at a point between 1937 and 1938, when the ownership level was again higher than the car stocks curve, but relatively close to it, a drop in supernumerary income depressed the level, changing a favorable market for automobile sales into a saturated one.

With rising supernumerary income and lower replacement and operating costs, the maximum ownership level rose to new high levels in 1935-1937. Once more actual ownership grew up toward the maximum, which it almost reached in 1937. Under this situation the industry was very vulnerable to even the moderate decrease in income which occurred in 1938. The market was in effect suddenly saturated. Note what happened to passenger car sales in 1938 on the next chart (page 19)—corresponding to the drop in supernumerary income.

The situation was aggravated by the large size and good quality of dealers' stocks of used cars, which had to be liquidated on a buyers' market. In such circumstances it is probable that price-cutting of new cars avails little, for prices of used cars are successively cut faster than the new. Price-cutting of new cars under such conditions certainly accentuates dealer distress.

As Scoville points out, what automobile owners consume is not new cars but transportation service.[2] This service at present comes from the 23,000,000 cars in operation. It can be maintained without buying new cars if the consumers will purchase cars from dealers' stocks or repair and run the old cars longer. If by magic all the 23,000,000 passenger cars now in use should become indestructible, automobile owners could enjoy about 500,000,000,000 passenger miles of transportation each year forever without buying a single new automobile. The demand for new cars is thus secondary to and wholly dependent upon the demand for personal transportation.

So much for the broad cyclical swings of automobile demand. How the annual totals of automobile sales are distributed from month to month depends principally on: seasonal variation and new model stimulus, price change anticipation, and the supply of new cars—field stocks and production. The first two are clearly the most important factors.

The "pure" seasonal—the regular, annually repeating variation due mainly to the changing seasons—is shown at the top of page 20. Taking the average month as 100, sales are low in January at 60 and high in April at 137.

The variation due to new model introduction, or the new model stimulus, is shown at the bottom of the chart. About four months before a model change, sales begin to drop off, showing a loss of about 6 per cent in average

[2] Scoville, John W., *Behavior of the Automobile Industry in Depression.*

EWING GALLOWAY

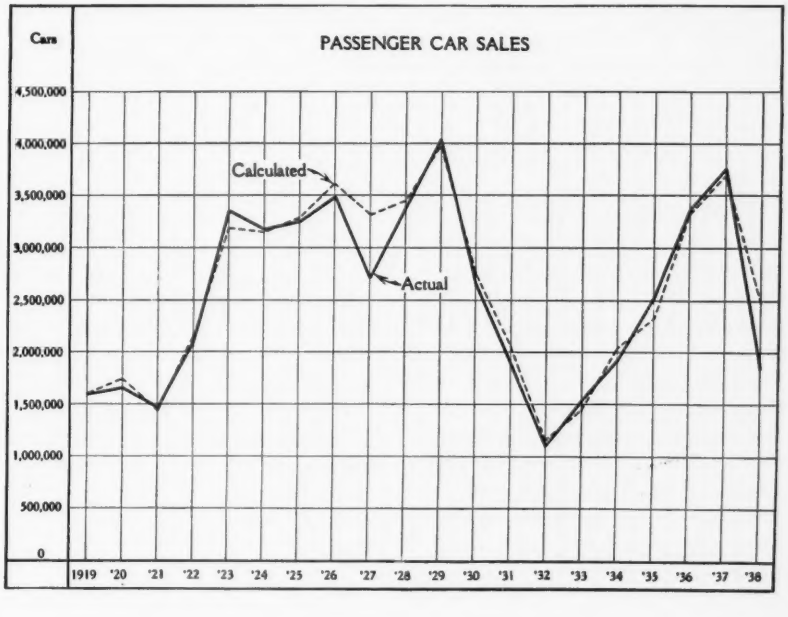
Among life's high spots, few surpass the pride in recalling that first automobile, capricious, expensive, modern!

monthly sales. As the model change date approaches, sales drop off still farther, until in the month just before the model change takes place the sales loss amounts to about 38 per cent of the average monthly sales. Sales in the two months immediately after the change rise to approximately 28 per cent and 26 per cent above the monthly average. The effect seems to be zero in the fifth and sixth months.

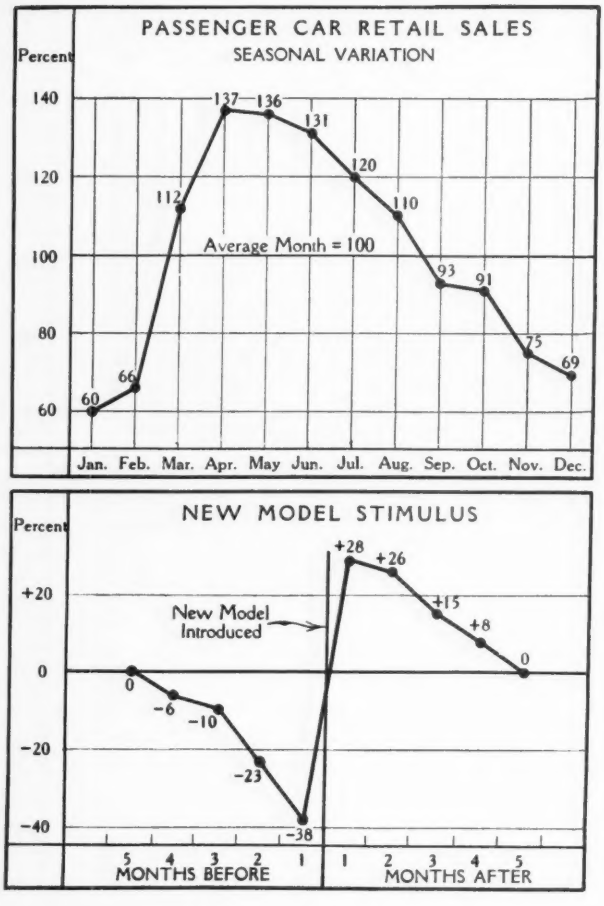
The chart on page 20 isolates this. It also shows the "pure" seasonal on a calendar month basis. This does not mean that all makes of cars will necessarily enjoy the same degree of new model stimulus, nor that the degree of stimulus will be the same for each year. However, in any particular case, the course of the stimulus should agree approximately with the curve shown.

From seasonal and new model stimulus curves it is possible to calculate how sales will probably be distributed for any given introduction date. This enables one to gauge far better the real position of the industry's sales when introduction dates are changed, as they are expected to be this year on account of the World's Fair.

Price change anticipation on the part of the customer increases sales before an expected price rise, followed by a decrease when the change takes effect. The opposite is true before an expected price decrease. This short-term effect merely shifts sales from one month to another without changing the total sales over a period. The long-term influence of price on automobile sales is outweighed by the powerful effect of the income factor, and also by changes in the policies of dealers on used car allowances and on used car stocks. Dealers tend to stimulate new car sales during periods of prosperity by "discounting" used cars, that is, by exchanging cash or credit for them, and to depress new car sales by selling off



The result of calculating automobile demand by one of several formulas is compared with actual sales. The formula is $S = j^{1.30}\ p^{-.65}\ .0254\ C\ (M - C) + .65\ X$. *S is sales; j is supernumerary income; p is price; C, cars in operation; M, maximum ownership level; and X, replacement pressure.*



Month-to-month sales variation is of two types, that due to regularly recurring seasonal influences (upper panel) and that attributable to introduction of new models (lower panel). The latter influence is zero on the chart until about four months before the introduction date. It falls rapidly until the new model arrives, then rises sharply for about two months.

their stocks of used cars during periods of recession.

From the demand standpoint, the outstanding characteristic of passenger automobiles and other durable goods is their durability. In consequence, consumption of these goods is dissociated from purchases and ordinarily extends five to fifteen years beyond the date of acquisition. Consumers' car stocks thus take on a prominent part in determining new car purchases. The demand situation is quite unlike that for perishable goods, in which the part played by consumers' stocks is negligible. Additions to consumers' stocks of automobiles, or new owner sales, depend chiefly on the difference between the actual car stock and the maximum stock or ownership level attainable under current conditions of income, price, operating costs, and car life.

The concept of a changing maximum ownership level is of primary importance in the automobile industry because when car ownership is near the level of maximum ownership and a decrease in supernumerary income occurs, the effect is to make the market suddenly saturated. A consequence is the elimination of new owner sales, and even the forcing of liquidation of a part of the consumers' car stock.

The analysis of the factors likely to influence automobile demand in this study led to the rejection of the usual national income series in preference to another, disposable income, which is believed to reflect more accurately the stream of money available for the purchase of automobiles. The chief difference in characteristics in disposable income are the exclusion of direct taxes and the inclusion of entrepreneurial savings. Supernumerary income is obtained from this by eliminating necessitous living costs to obtain a better figure for a durable goods purchase.

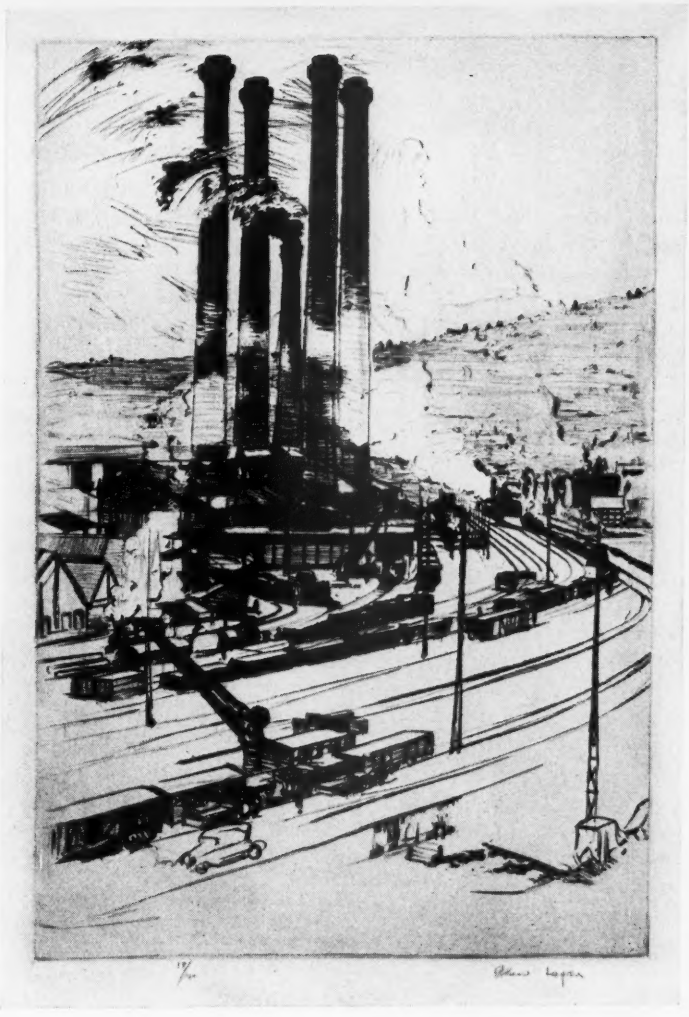
The guiding concept in developing the formula is that what consumers consume is not new cars, but transportation service from their car stock; the new car sales are a derived demand incidental to replacing cars in this stock, or building it to a higher level. The principal factor in determining how this car stock is to be built up is the eventual ownership objective of the consumers, or the maximum ownership level.

The secondary importance of price also appears from the experience of other durable goods industries such as residential building and railway equipment. Response to price is present in these durable goods industries, but it is insufficient to offset the large cyclical swings arising from the stocks of these goods in the hands of users and the variations in general production and national income.

Durable Goods

This analysis of the factors governing changes in automobile demand seems to have considerable relevance to the durable goods problem, which is the outstanding problem of our twentieth century economy. An abundance of durable goods characterizes a high level economy; and from durable goods arise instability and wide cyclical swings. The appalling complexities posed by this characteristic feature of a high level economy have even induced some persons to give it up entirely and recommend a return to the simple life of an economy centered mainly on the production of perishable goods, controlled (*i.e.*, impeded) production, or a moratorium on invention.

This defeatist attitude seems to be entirely unwarranted. What really is needed is extensive research designed to lay bare the fundamental economic problems of a durable goods economy. One principle that already stands out is that the consumer of durable goods has much to say about the use of his income. Hence, if a high level of consumption is to be maintained, consumer confidence, which will induce the spending of income at a constant rate, is essential. Once this and similar problems are understood and practical economic principles are established, increasing stability and continued growth should be possible with a high level of durable goods production.



An impression of industrial power lives in this etching by Robert Fulton Logan, head of the Department of Fine Arts, Connecticut College. Work by the artist appears in such varied locations as the Luxembourg, Paris; the British Museum, London; and the Library of Congress, in Washington. (Reproduced by courtesy of Kennedy & Company.)

HOW DID BIG BUSINESS GET BIG?

Analyzing Conflicting Testimony on Concentration in Industry; Third Article in a Series on Corporate Growth in America

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A PITUITARY gland that is generally overactive and occasionally produces a monstrosity is the figurative charge against "big business." Practically, there must be the usual series of matter-of-fact questions, calculated to cover all the approaches. How big is Big Business? Is it getting bigger? How did it get big? Why did it get big? And finally, what of it?

The answers to this appalling questionnaire are unfortunately preliminary to an understanding of one of our leading economic and social problems. The first two queries have already been discussed in recent issues of DUN'S REVIEW. Here is the third. The fifth is probably the most important, and also the most baffling. Regardless of whether corporate skyscrapers appeal to our national sense of the beautiful, the final

test must be their capacity for prodigious services such as might make us forget their looks. That, however, is another story.

The pattern of growth is part of any analysis of the reasons for it, as it will inevitably reflect coincidences of causes and events. The easiest generalization is to recognize a fitful long-term trend toward concentration, the character of which has been shaped principally, however, by the two speculative periods 1897-1903 and 1925-1929.

The story necessarily begins with the undertones. Tremors were felt long before the corporate earth began to shake in the Nineties—in fact before the Civil War. Pools and trade agreements had put in an appearance at even that early date. From the same fertile soil there bloomed in rapid succession the so-called "trusts," combinations, and holding companies, all overlapping extensively, but each dominating the restless pattern for a while.

The "trust" improved upon the pool as a means of easing the sorrows of competition by vesting in boards of trustees the direction of entirely separate and previously competing businesses. Centralized authority was thus substituted for dependence upon voluntary co-operation, the weakness of the "gentlemen's agreement." The central idea was still collective action rather than outright consolidation. Individual concerns appeared to retain their corporate identity, if not their competitive independence. However, it was practical loss of identity which finally outlawed the trustee device in the courts.

Irrespective of technicalities, this evolutionary phase put its stamp on the whole subsequent movement in the name "trust," of which even now there can be heard at least an occasional whisper. The area of business given over to the device was impressive even by modern standards. Dr. W. H. S. Stevens recently published a reminder that even prior to 1890 great combinations in the form of "trusts," such as those in oil, sugar, lead, cotton oil, linseed oil, and whiskey industries, had reduced the number of sellers and assumed monopolistic positions.[1] In the meantime the railroads had made substantial progress toward concentration through various forms of stock acquisition.

The Sword Suspended

By 1890 popular distaste had been aroused to the point of precipitating the Sherman Anti-Trust Act. There then followed what may be termed an inquiring pause. The sword of Damocles was seen to be suspended, but when it fell without any conspicuous accompaniment of gushing blood or rolling heads, the combination movement took on new life as though merely refreshed by its rest. The immediate signal, perhaps, was the revival of business in 1897, after a long and serious depression. For a while the trend manifested itself principally in a perfection of the holding company device as a welding tool.

What followed is common knowledge, and produced one of the two major periods of unmistakable concentration that have contributed so substantially to present-day disquiet. In brief, the years 1897 to 1903 witnessed a vast burgeoning of mergers and big corporate promotions. Save for a brief interlude in 1900, bank funds were abundant, interest rates were low, the public was receptive to capital flotation, speculation was active, all the circumstances of the moment invited both credit inflation and financial promotion. On the operating side, industrialists were not exactly loath to relieve the torments of competition by joining or buying out competitors.

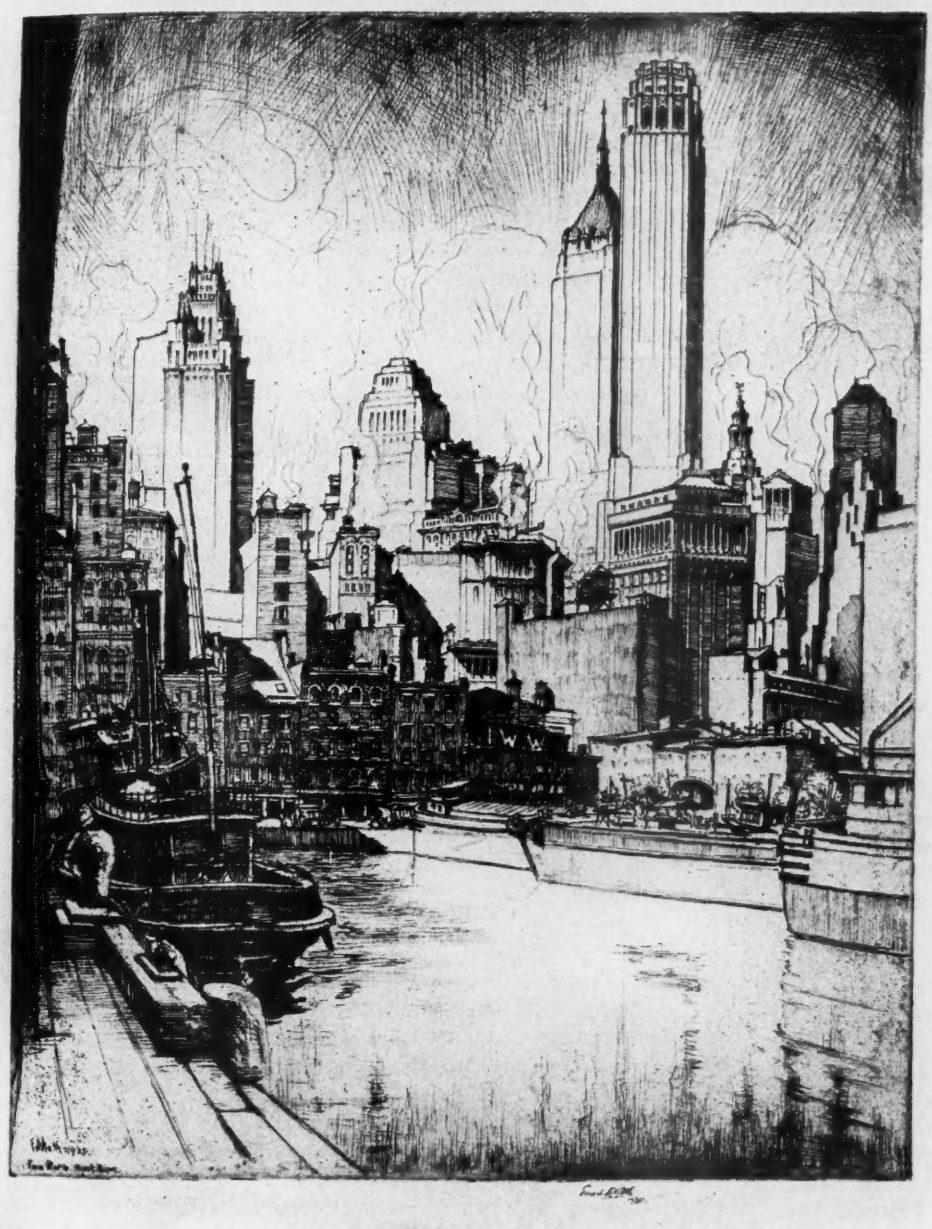
It all happened on a grand scale. As remarked by Dr. Stevens, ". . . the great era of industrial consolidation from 1897 to 1903 . . . produced perhaps a greater reduction in the number of sellers, particularly leading sellers, in scores of industries than any other corresponding period in our industrial history." Today's citizen, hearkening to modern outcries over monopoly, may indeed cast a bewildered glance at the calendar if he chances upon John Moody's *The Truth About the Trusts,* published in 1904, in which a sinister handful of combinations was alleged to control two-thirds of the manufacturing capital of the country.

In terms of reported assets, as distinct from the realities of competition, the degree of apparent concentration achieved during the first great merger period may have actually fallen back in the years immediately following. There is dispute, for instance, over the extent to which the stocks of the early trusts were watered and therefore subject to a spell of at least statistical shrinkage. That would mean, from the

[1] "Has Competition Declined?" *The Journal of Marketing,* April, 1939.

BIGNESS in business is a perennial issue and as such has just enjoyed a particularly full and busy year. Despite judicial and practical distinctions, interested observers are not always successful in keeping "size" and "monopoly" as far apart in their thinking as the circumstances sometimes warrant. Chain-store taxation, for example, is increasing both extensively and intensively. The Temporary National Economic Committee is making a general investigation of the American economy in which bigness and monopoly power are receiving their full share of attention. Questions are being raised within the ranks of business itself as to whether there is such a thing as an "optimum" scale of operations, or a size for each industry that meets its producing and distributing requirements more efficiently than would a greater or smaller size. And from all walks of life are coming suggestions as to what should be done about bigness on economic and social grounds.

In a series of articles—of which this is the third—Mr. George has assembled the available evidence on business concentration to supply an approach for both convenient and unsentimental appraisal of the issues to which it has given rise.



"From Pier 4, East River" —This etching by Ernest Roth, a member of the National Academy, contrasts the shining towers of downtown New York with the waterfront. The etcher is one of a few who specialize in architectural subjects. Mr. Roth has received several awards for his work. (Reproduced by courtesy of Kennedy & Company.)

standpoint of this discussion, that their real growth for the time being might have been partly engaged in replacing water, while that of the smaller fry continued to register in old-fashioned bookkeeping ways. Prof. Eliot Jones has declared that "generally speaking, the capitalization of the trusts was twice as large as the value under competitive conditions of the properties and businesses that they acquired."[2] But Prof. Shaw Livermore has stated very firmly that excessive capitalization was the exceptional rather than the usual case.[3]

If there was not a good deal of water in the general crop of first-period "trusts," however, public belief at least will be dreadfully affronted. For thirty years, great ado has been made over the state of virtual immersion in which the big corporations (old-style) were supposed to subsist. Over the years that followed, this water was subjected to a slow evaporating process, through depreciation charges and rising property values. The United States Steel Cor-

[2] *The Trust Problem in the United States*, The Macmillan Company, 1921, p. 269.

[3] "The Success of Industrial Mergers," *The Quarterly Journal of Economics*, November, 1935.

poration, generally regarded as a corporate tank even amidst the old oaken buckets of its period, had reduced its excess of capitalization over tangible property from about $700,000,000, or 100 per cent, in 1901 to about $280,000,000, or 24 per cent, in 1910.[4] The floods were at least receding by this date, even though there was still no worry over drought in capital structures. It follows that the statistical influence of these particular trusts may have ebbed somewhat in the years immediately following their formation, although the record is dim as to whether concentration was or was not coming along in other but less publicized forms.

At any rate, from the 1904 Northern Securities case—which frowned on holding companies—until the middle of the Twenties, the growth of large enterprises was certainly not spectacular, at least in the sense that the populace was quite calm over whatever was happening. What reverberations there were came principally from the pounding of T. R.'s big stick and from the sonorous phrases of the Supreme Court.

In fact it was not until 1931, when Dr. Gardiner C. Means published the first results of his elaborate study, that any extensive effort was made to discover what had actually transpired during these corporate Middle Ages. Due in part to long neglect, there were many statistical voids in the record, and researchers generally were obliged in spots to shift from Numbers to Revelations. One difficulty has been that because of the peculiarities of the available evidence—due principally to the further absorption of "water" between 1909 and 1921—the growth of both "giants" and "all corporations" was always in danger of being understated by non-comparable amounts. While frankly recognizing the frailties of the available data, Berle and Means came in the end to feel that concentration had progressed materially.

Other observers, hesitating to trust their weight to the thin factual ice of the period, were inclined to assume that "bigness" was probably at least creeping on us in an era marked by both rapid technological expansion and the co-operative stimulation of a war. Still a third group has decided that in the absence of clear-cut statistical evidence, little increase in concentration occurred up to the 1929 crest at least, save in the two major speculative periods of 1897-1903 and 1925-1929. All parties are fairly well agreed that from 1921 to 1924 at least, nothing of importance happened.

Leviathans

The years 1925 to 1929 formed a period during which, beyond cavil, big business got bigger with a vengeance. The Berle and Means year-by-year figures depicting the growth in gross assets of the leviathans as against that in the wealth (real estate, buildings, equipment, cash, and inventories) of the common herd during these five years have been found to compound annually at 8.35 per cent as against 5.1 per cent.

Mergers were clearly one of the roads to corporate grandeur during this period. Dr. Willard L. Thorp's examination of the merger movement in the 1920-1929 decade[5] discloses nothing less than a majestic sweep during its latter half. From 1925 to 1929 he reported 4,583 disappearances through mergers and acquisitions among manufacturing and mining concerns, as against 2,235 for the not inactive years 1920 to 1924—over twice as many. For 1929, the peak of 1,245 disappearances was not only far in excess of any previous year's performance but alone accounted for over half as many disappearances as had been recorded for the five years running from 1920 to 1924.

In his contribution to *Recent Economic Changes*,[6] Dr. Thorp reported 3,104 disappearances in the public utility field during the four years ending in 1928, as against 1,365 during the previous four years. The comparison becomes still sharper when it is observed that from comparative quiescence in 1919 and 1920 (when only 22 and 15 companies disappeared from this cause), the utility merger movement rocketed to a peak of 1,029 disappearances in 1926. In their lush years in fact the utilities actually outdisappeared the manufacturing and mining companies, despite the latter's far greater density of population. This phenomenon brings back to mind one of the complaints against general figures on concentration as reported in the first article of this series, namely, their inability to distinguish growths of different origin and character which therefore pose different questions of public policy.

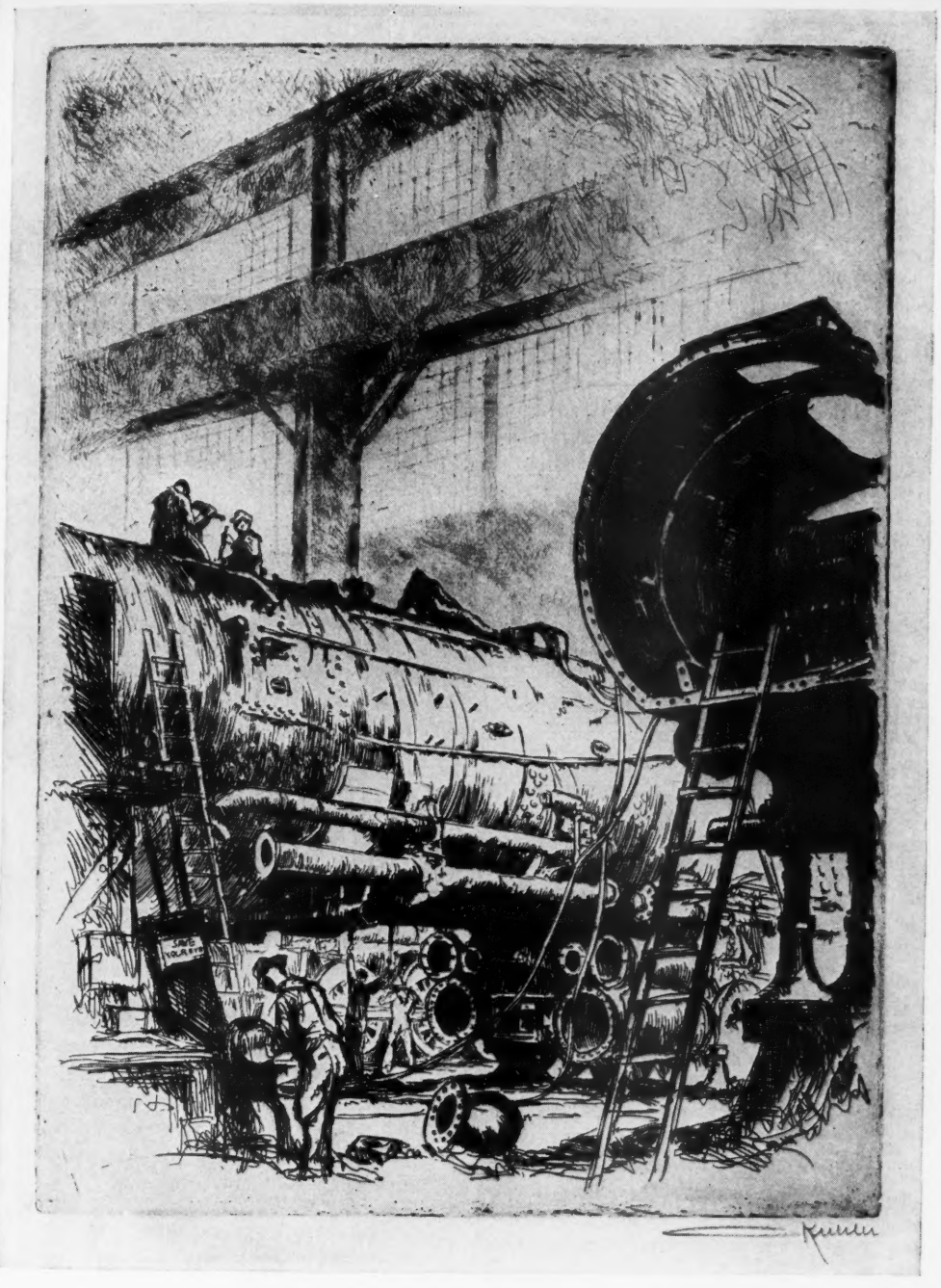
Apropos of inter-industry distinctions, it should also be duly noted that but few sections of industry neglected to sniff at least the bouquet of this modern love potion. The main story has been told in terms of manufacturing, mining, and utilities, where the mating was of vigorous Gretna Green proportions, but whether attention is fixed on motion pictures, chain stores, banks, or hotels, signs of the elixir's bittersweet ravages may be discerned. And although the Thorp data on manufacturing, mining, and utilities were compiled in terms of business units affected without regard to assets involved, combination can safely be assumed to have proceeded at a pace out of all proportion to any recent time period.

The financial records of this era likewise abound with either evidence or implications of disproportionate growth. Corporate securities were offered in unprecedented volume. Many of them were the fruits of mergers, many for the use of concerns that were content to progress in celibate state. It is easy to assume that corporations already large reaped the principal benefits. Berle and Means estimated that between 1922 and 1927 inclusive, "over 55 per cent of the growth of the large companies has been made possible by the public offering of additional secur-

[4] Report of the Commissioner of Corporations on the Steel Industry, Part I, July 1, 1911, p. xxii.

[5] "The Persistence of the Merger Movement," *The American Economic Review*, March, 1931, Supplement.

[6] "The Changing Structure of Industry," in *Recent Economic Changes*, Volume I, National Bureau of Economic Research, 1929, p. 187.



"The Monster Grows"—an etching by Otto Kuhler, who designed such well-known trains as the "Hiawatha," for the Chicago, Milwaukee, St. Paul & Pacific, the "Royal Blue" and "Columbian," for the B. & O., and Lehigh Valley's "John Wilkes" and "Asa Packer." (Etching reproduced through courtesy of Kennedy & Company.)

ities;" and further, that over the same period ". . . two-thirds of all public offerings of new securities . . . were made by the 200 largest [non-financial] corporations or their subsidiaries."

It has been estimated by *The Commercial and Financial Chronicle* that over $28,000,000,000 in new corporate security issues, representing new capital and not refunding, were publicly offered from 1925 to 1929. The proceeds of most of these offerings doubtless went to the self-same giants, although a respectable portion might have to be credited to the "sub-giants" with assets of less than $100,000,000, who constituted some three-fourths of the total number listed and active on the New York Stock Exchange. During this period those which were able to do so, meaning necessarily the more imposing enterprises, naturally took advantage of the easy opportunities afforded to expand through the sale

of low-interest-bearing bonds or of stock.

Perhaps the narrative section of this analysis of the means of growth should close with a warning that the neat division into periods which it has suggested can be veiling the action of causal factors as well as indicating the formal pace of growth resulting from them. Either technological or speculative pressures can be building up for some time before they erupt. A closer inspection of the merger cycle will illustrate the point.

Industries are organic. They grow up and die, and have life stages. One of these is often a settling-down process. A time seems frequently to arrive when larger concerns begin taking over smaller competitors, not because the latter are threatening them but because they are failing and on the market; or when mergers are resorted to with the design of bringing complementary lines together. Mergers of this type seem very often to be merely a stage in an industry's coming of age. They may be in the offing for years, and finally materialize in a speculative boom when money is easy and corporate promotion is the order of the day. Thus even the normal life line of an industry can contribute to the dullness of those periods in which no growth of concentration is perceptible, as well as mingle with the excesses of the periods that push it ahead in great statistical leaps and bounds.

Means of Growth

Throughout the development of this structural picture have appeared glimpses of the means by which corporate greatness has been achieved. Outstanding have been mergers, financing, and reinvestment of earnings. These three factors were brought together formally in Dr. Means' brief observation on their relative importance. Examining the 1922-1927 period, he found that the giants were better able to raise capital by selling securities in the public market, that much of their growth could be attributed to mergers, and that large companies habitually reinvested a larger percentage of their earnings than did small. The growth of the 200 largest during the above six-year period was credited to these three factors in the ratios of 55.0 per cent, 18.5 per cent, and 26.5 per cent respectively.

These ratios, of course, applied only to a particular stretch of time, and might fluctuate widely under the spur of changing circumstances. That any estimate of the importance of mergers as a first cause of concentration for the years 1925-1929, for example, would probably have to be higher than that for 1922-1927, may be inferred from the figures previously drawn from Dr. Thorp's study of mergers, indicating that their number expanded spectacularly in the closing years of the decade of the Twenties. It seems certain that financing and merging were more important during the two big speculative eras than over the more somnolent years between.

It must also be understood at the outset that no simple pattern emerges regarding either the extent or the timing of the use made by different industries of these different devices, *i.e.*, reinvestment, external financing, and mergers.

Dr. Caroline F. Ware pointed out that the capital invested in the early New England cotton manufacturing business grew largely through reinvestment of earnings.[7] Stephen Jay Kennedy observed that despite a flurry of public financing in the late Twenties, the bulk of the expenditures upon plant made in the textile industry since the war seemed to have been drawn principally from earnings.[8]

In similar fashion the automobile industry fed almost entirely upon its own accumulated resources. Dr. Ralph Epstein has pointed out that "most automobile companies have been built up principally from reinvested profits" and that "the concentration which has existed . . . has not been accompanied by any great amount of combination."[9] Dr. Lawrence H. Seltzer assented with the remark that "the growth of the American automobile industry was characteristically the expansion of originally small enterprises that obtained the bulk of their increasing capital from reinvested profits."[10]

It will be evident to the reader of course that some of these observations on the automobile industry have to be qualified by the fact that they are in part being applied to the growth of the industry rather than of its leading units. Also, at least two important mergers were accomplished after these studies were made.

Mergers

Both offensive and defensive mergers have featured the well-known modern growth of the aviation industry. The steel and public utility industries similarly offer examples of the use of the merger device by individual companies in attaining great size. Great units in the bread-baking industry came into being principally by virtue of mergers, according to Dr. C. L. Alsberg.[11]

These illustrations on an industry-by-industry basis are significant in indicating cross-currents within the total. The immediate story, however, is of concentration in the over-all sense, the handful against the mass. It is in those terms that the effort is now ventured to appraise the extent to which the existing degree of concentration is beholden to each of the three outstanding means by which such things come about, namely: the resort to mergers, new financing, and reinvestment of earnings.

One of the major roads to concentration has been through mergers. Of the three methods enumerated, this is the most suspect. The merger movement has had a history that is surpassingly gaudy if not brilliant; and indeed,

(Continued on page 46)

[7] *Early New England Cotton Manufacture*, Houghton Mifflin Company, 1931, p. 129.

[8] *Profits and Losses in Textiles*, Harper & Brothers, 1936, pp. 12-19.

[9] *The Automobile Industry*, A. W. Shaw Company, 1928, pp. 218, 224.

[10] *A Financial History of the American Automobile Industry*, Houghton Mifflin Company, 1928, p. 19.

[11] *Combination in the American Bread-Baking Industry*, Leland Stanford University, Food Research Institute, 1926, p. 9.

THE BUSINESS DIARY JULY · 1939

Congress defeats Neutrality Act revision and is rebellious over spending and housing bills as it speeds toward adjournment. . . . Epidemic of WPA strikes hits nation. . . . General Motors' strike also figures prominently in news. . . . Wall Street stages mid-month rally from slump. . . . Northeastern States suffer from extended drought. . . . Storm rumblings continue in Europe and the Far East.

1 WPA workers start 130-hour month.

3 ALL quiet on the Stock Exchange as bonds hold firm in dullest full-session turnover in twenty-two years; stocks set like record for seventeen-year period.

5 THOUSANDS on WPA strike, protesting longer hours, less pay. CIO calls strike of tool and die makers in General Motors' Detroit plant.

6 PRESIDENT signs disputed Monetary Bill, continuing his dollar devaluation authority and the $2,000,000,000 stabilization fund to June 30, 1941. Autogiro inaugurates world's first airport-to-city taxi mail service in Camden-Philadelphia run.

7 CLAUDE A. SWANSON, Secretary of the Navy, dies. General Motors' strike spreads.

8 PRESIDENT commissions Rear Admiral Richard E. Byrd to lead Antarctic expedition to claim polar territory covered by Monroe Doctrine.

9 FIRST back-to-work movement in WPA strike.

10 ADMINISTRATION'S $2,660,000,000 Spend-Lend Bill introduced in Congress. Treasury cuts price for foreign silver to 35c. Paul V. McNutt named as Federal Security Administrator.

11 SENATE COMMITTEE shelves Neutrality Bill. NLRB grants employers right to petition for election to determine bargaining agent.

12 STOCK MARKET breaks out of rut as prices advance.

13 CHICAGO FEDERAL JUDGE dismisses Government anti-trust suit against Midwest milk industry.

14 ROOSEVELT warns WPA, "You cannot strike against the Government." FCC suspends rule limiting international broadcasts to promotion of good-will and culture.

16 CIO group strikes to organize "Big Four" meat packers. TNEC preliminary report recommends wide revision of patent and anti-trust laws.

17 STOCKS climb in heaviest wave of trading since March 31.

18 EMIL SCHRAM named new RFC chairman.

19 CORN prices sink to five-year low. Contract finally signed in Harlan coal strike.

20 HOUSE votes special NLRB probe. William J. Patterson named to ICC.

22 COTTON export subsidy set at 1½ cents a pound, effective midnight of July 27.

25 JOHN L. LEWIS announces formation of unit to organize construction industry.

26 UNITED STATES notifies Japan it will abrogate 1911 commercial treaty, effective in six months. Federal Court dismisses anti-trust indictment against American Medical Association.

27 JAMES L. FLY nominated as successor to Frank R. McNinch, retiring FCC chairman. Federal Court reverses conviction of seventeen defendants in Government's oil conspiracy case at Madison.

28 FOUR typewriter companies indicted by Federal grand jury for Sherman Anti-Trust Act violation.

POWER PLANT, THE BRONX, EAST RIVER, N. Y.—CUSHING

THE TREND OF BUSINESS

PRODUCTION . . . PRICES . . . TRADE . . . FINANCE

Reports of general business conditions were predominately favorable during July and early August. Industry advanced, while trade activity was maintained at a relatively high level. Inventory trends were considered healthy. The stock market in July showed signs of life. Weakness in commodity prices and some grumblings from unsettled Europe were the most disturbing elements in the picture.

BUSINESS news for July and early August was mostly of an encouraging nature, although a few factors caused the resulting optimism to be tinged with conservatism. Sentiment was undoubtedly improved. Steel output expanded counter-seasonally, wholesale shows met with good response in the form of orders for the new Fall season, and the stock market shook off its lethargy. The better feeling was not in the least surprising, considering that there were a number of favorable developments.

Industrial Production

Federal Reserve Board Adjusted Index
1923-1925 = 100

	1936	1937	1938	1939
January	97	114	80	102
February	94	116	79	99
March	93	118	79	98
April	101	118	77	92
May	101	118	76	92
June	104	114	77	98
July	108	114	83	102
August	108	117	88	
September	109	111	91	
October	110	102	96	
November	114	88	103	
December	121	84	104	

The long-deplored "lack of confidence," however, failed to be completely dispelled, and commitments for more than a few months ahead were made with a good deal of hesitation. The failure of commodity prices to respond to the general improvement was considered by some as evidence that the "go-ahead" signal for business was not yet clear. This, coupled with the continued uncertainty of the political outlook in Europe, persuaded some observers that progress must still be made in a cautious manner.

Industry, in any case, moved forward more than would ordinarily be expected during the Summer months. Production levels on a seasonally adjusted basis were at the highest point since January. The outstanding factor in the rise was steel production, which advanced in opposition to the usual seasonal movement. Despite the rapidity of the expansion of steel ingot output, which gained more than 20 points during July to more than 60 per cent of capacity in the last week of the month, demand was sufficient to meet the increase. Some production anticipated automotive needs for work on 1940 models, but structural and engineering requirements, plus miscellaneous needs, sustained the volume of orders.

Factory Payrolls

U.S.B.L.S. Index (Revised)
1923-1925 = 100

	1936	1937	1938	1939
January	76.7	94.4	75.0	83.4
February	76.6	99.7	76.9	85.5
March	80.3	105.5	77.1	86.9
April	82.3	109.3	74.6	84.9
May	83.9	109.7	72.9	84.4
June	84.1	107.0	70.8	86.2
July	83.4	104.6	70.6	
August	87.1	108.2	76.9	
September	86.9	104.4	81.6	
October	92.5	104.5	83.8	
November	94.0	92.9	84.1	
December	98.8	84.2	86.5	

Pig iron production during July was 7.6 per cent ahead of June on a daily average basis, and exceeded the year-ago volume by 94.3 per cent. Thirteen blast furnaces were put in operation during the month, and two were blown out or banked, leaving a net gain of eleven active furnaces for the month.

Machine tool orders for July gave further evidence of increased activity in the durable goods industries. The index advanced 19.3 points during July to a 26-month high of 230.9. For three successive months the index has remained above 200. About half of total orders was said to be from foreign sources, although there was some evidence of a broadening domestic demand on the part of aircraft makers and shipbuilding companies.

Other generally accepted indicators of industrial activity confirmed the advance. Electric power production declined less than seasonally, as users of this type of energy failed to curtail operations. Bituminous coal output increased from June to July, preliminary estimates of output per day at 1,180,000 tons exceeding the June level by 1 per cent and the July 1938 level by 26 per cent. Lumber production likewise continued well ahead of a year ago.

Freight-car loadings, following the industrial trend, advanced to new highs for the year. July figures showed a 13 per cent gain over the corresponding month of 1938.

Automobile output declined sharply during July and the first part of August, but early resumption of activity on the new 1940 models was planned. The tool and die strikes held up activity in some plants; settlement of the labor difficulties removed a disconcerting obstacle to stepping up production.

Construction contracts during July increased about 4 per cent over the June totals, according to a report from

Department Store Sales

Federal Reserve Board Adjusted Index
1923-1925 = 100

	1936	1937	1938	1939
January	81	93	90	88
February	83	95	88	87
March	84	93	86	88
April	84	93	83	88
May	87	93	78	85
June	87	93	82	86
July	91	94	83	86
August	86	92	83	
September	88	94	86	
October	90	93	84	
November	94	91	89	
December	92	89	89	

the F. W. Dodge Corporation. Seasonally corrected, the gain was about 12 per cent. Both residential and public utility awards, however, fell below the previous high April level by 14 and 26 per cent, respectively.

On the consumer goods side of the industrial picture, favorable inventory positions made for a relatively good level of output. Cotton mill activity rose to new high levels for the year, despite a 25 per cent curtailment in output of print cloth for July, August, and September. Woolen mills were beginning to start work on Fall lines, and unfilled orders were well ahead of last year. Rayon yarn shipments for the first seven months of the year were 48 per cent larger than for the same period last year; shipments were benefited both by the seasonal upswing in fabricators' mill activity and by the current high price of silk.

Little net change in employment and payrolls occurred between June and July. Losses in some industries were offset by gains in others—in canning, men's clothing, and shoe factories, for example, a seasonal expansion occurred, whereas in women's clothing, millinery, and silk mills activity declined. Farm income was depressed by low prices, despite good crop prospects in many sections of the country. Drought

Wholesale Commodity Prices

U.S.B.L.S. Index—1926 = 100

Week	May 1939	June 1939	July 1939	Aug. 1939
I	76.1	75.7	75.5	75.1
II	76.4	75.6	75.6	74.8
III	75.9	75.4	75.5	
IV	75.8	75.5	75.2	
V			74.8	

conditions in other sections were responsible for a downward revision of crop estimates. As of August 1, the Department of Agriculture estimated the corn crop at 2,459,888,000 bushels, somewhat below the July estimate, compared with 2,542,238,000 bushels last year. Wheat production, revised upward from the previous month, was still below the ten-year average, although the yield per acre of Winter wheat was higher than last year. The cotton crop was estimated to be 531,000 bales short of the 1938 yield. Government subsidies, however, will undoubtedly modify farm income as reckoned from crop yield and market price.

Consumer buying at retail was well-maintained during July and early August. The FRB seasonally adjusted index of department store sales at 86 for July was unchanged from the June level; on an unadjusted basis sales declined about the usual amount in the month. In comparison with last year, sales were 3 per cent larger, and the total for the first seven months of 1939 was 4 per cent above last year. Chain store sales were 9.9 per cent ahead of a year ago. Bank debits during July were slightly below June totals, but held up well for the time of year. A 45 per cent gain in automobile sales was registered over last year. Despite excessive heat in many parts of the country during

Industrial Stock Prices

Dow-Jones Index (Weekly Average)

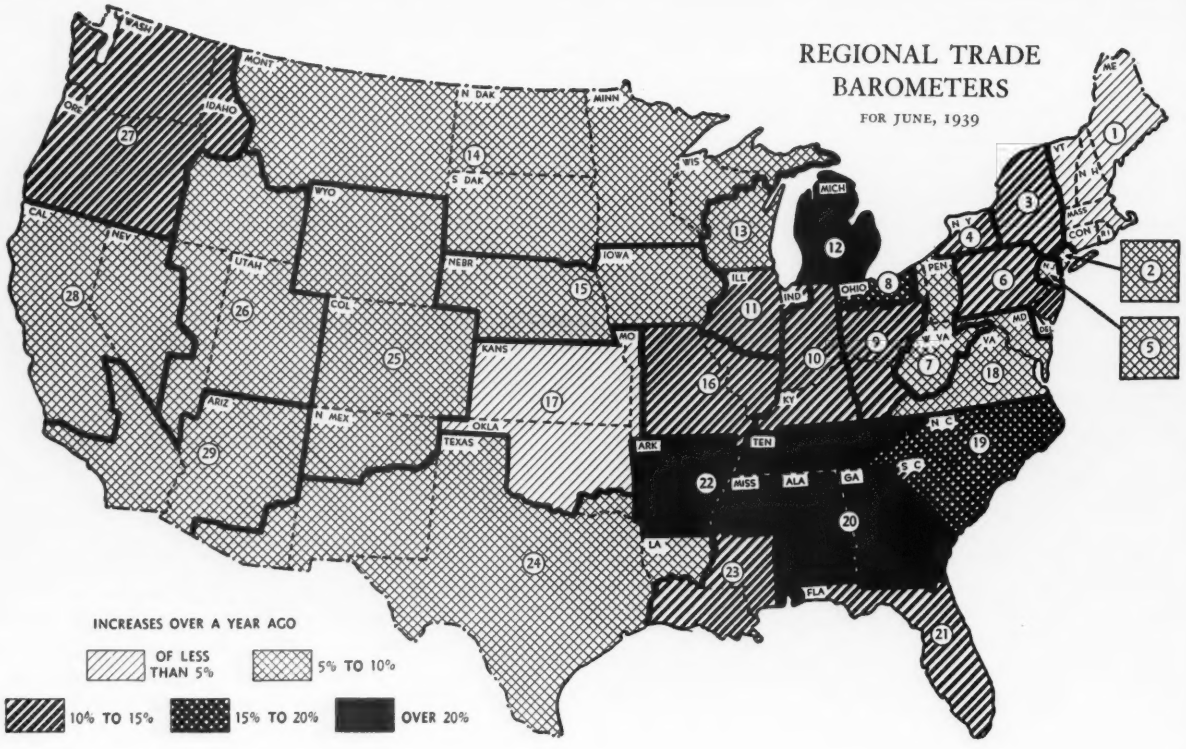
Week	May 1939	June 1939	July 1939	Aug. 1939
I	130.75	137.21	132.63	143.16
II	132.61	138.81	133.13	139.09
III	130.27	136.54	136.47	
IV	134.61	137.21	143.07	
V			143.95	

early August, retail results continued to reveal gratifying gains over a year ago.

Although wholesale activity reflected a larger volume of advance orders than at the same time last year, retailers continued to operate on a noticeably cautious basis. Advance commitments for women's apparel showed a gain of only 5 per cent over a year ago. Men's wear dealers were more optimistic, placing orders about 25 per cent larger than at the same time last year.

Wholesale commodity prices were definitely not strong during the period. In the week ending July 29, the BLS index dropped to the lowest level in five years. Food and farm products dropped the farthest. Prices were somewhat less weak in the first week of August.

On the financial front, news was slightly more encouraging than heretofore. Corporate earnings for the second quarter of the year were better than expected, almost three-fourths larger than in 1938 in some representative firms. Increased activity on the New York Stock Exchange during July was reflected in the highest monthly volume of transactions since April, and stock prices climbed, cheering business considerably. The daily average number of transactions continued relatively high during the first days of August, but prices sagged.



TRADE INDEX SHOWS DECLINE

The United States Trade Barometer dropped to 80.9 (preliminary) in July from 83.4 in June. Barometer figures are compiled by Dr. L. D. H. Weld, Director of Research, McCann-Erickson, Inc.; trade information is reported by 157 district offices of DUN & BRADSTREET, INC.

THE HOT AND HUMID WEATHER which oppressed some sections of the country in the first part of August had diverse effects on retail trade results. On the one hand, early selling of Fall goods was minimized, but on the other, clearances of Summer left-overs were considerably quickened. Reports on fur sales indicated that volume was somewhat larger than a year ago, even though there was less promotional activity. Automobile sales were strong, despite the early date of the introduction of new models, and dealers' stocks were considerably reduced.

Wholesale trade sentiment continued optimistic. Although markets were quieter by the middle of the month, due to the major trade shows being over, buying of Fall lines continued active, and the number of requests for prompt shipment indicated that stocks were unusually low.

A more-than-seasonal lull in retail buying occurred in July. The preliminary United States Trade Barometer dropped 3 per cent from the June figure, and showed a gain of only 5.8 per cent over a year ago, as compared with an 11.5 per cent margin of increase in the previous month. It should be noted, of course, that year-to-year comparisons are now being made with the rising level of activity last year. One explanation for the decline in the July index apparently lies in the fact that there was a shortage of desirable merchandise. Stocks of Summer goods were in many cases too low to warrant the customary heavy clearance sales, and retail volume suffered accordingly. The long week-end at the beginning of the month also subtracted from total sales volume, and only amusements, hotels, transportation agencies, and similar enterprises benefited from the extended holiday.

Increased future commitments, emphasis on better-quality merchandise, and low inventories lent increased momentum to wholesale buying during July. Frequent

requests for Summer sale goods were received, but little merchandise of the desired sort was available, and concentration on Fall lines resulted.

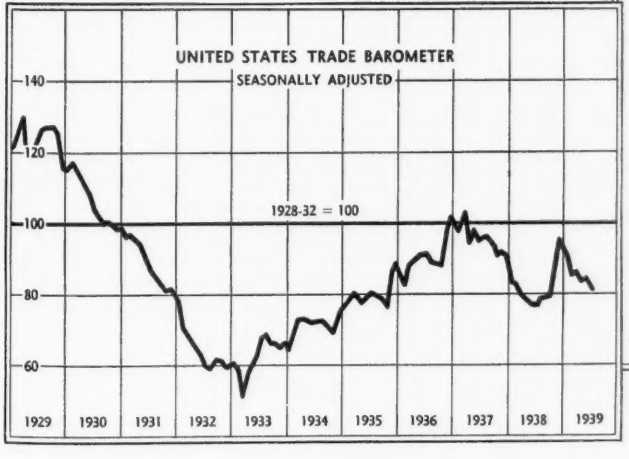
The United States Trade Barometer in June turned mildly downward, dipping fractionally below the May level to 83.4. At that point the index was at approximately the same level as in April and was considerably below the January high point of 91.3. Thirteen regions reported gains over the previous month's level, as compared with eighteen regions in May. Six of these showed increases of less than 3 per cent. Except for Memphis, which showed a sizable gain of 12.5 per cent, none of the increases was greater than 5 per cent. The most substantial retrenchment, 11.8 per cent, occurred in the St. Louis area. Other large decreases were reported in Salt Lake City, Northern New Jersey, and Indianapolis and Louisville.

All regions again showed improvement over the corresponding period of last year. Memphis reported the largest gain, 35.4 per cent, the Detroit area was second with 28 per cent, and the Atlanta and Birmingham district was third with a 20.2 per cent increase.

THE MAP AND CHART compare the June, 1939, indexes with those for the same month a year ago. The column at the extreme right of the chart indicates the relative importance of the regions: the figures are percentages of national retail trade from the 1935 Census of Business.

THE INDEXES for the regions are charted, with U. S., from 1928, on pages 32-36. They are composites based on: bank debits (Federal Reserve Board), department store sales (Federal Reserve Board), new car registrations (R. L. Polk & Company), and life insurance sales (Life Insurance Sales Research Bureau). In regions 2, 3, 4, 5, and 14, wholesale sales (Department of Commerce), and in region 2, advertising linage (*Editor and Publisher*), which were found to make those indexes more accurate, are included. In region 15, department store sales have been omitted. Each index is separately adjusted for seasonal variation and for the number of business days in each month. All are comparable. The monthly average for the five years 1928-1932 equals 100. The preliminary figure for the United States is computed one month before the regional figures are available.

THE PARAGRAPHS printed opposite the 29 regional charts quote figures for June based on samples of department and retail stores reporting to the Federal Reserve banks; for July and for the first half of August based on opinions and comments of business men in various lines of trade, gathered and weighed by the local DUN & BRADSTREET offices.

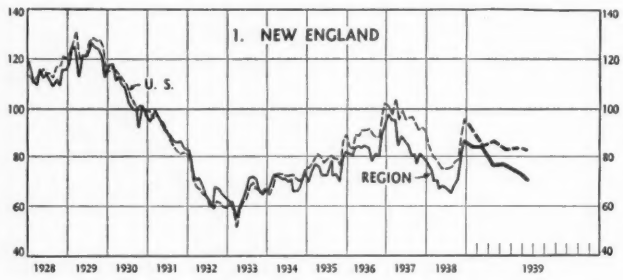


REGIONAL TRADE BAROMETERS

	REGION	June 1939 Regional Index	June 1939 Compared with June 1938 (%)	Retail 1935 Sales %
	U. S.	83.4	+11.5	100.0
1.	NEW ENGLAND	71.0	+ 4.7	7.8
2.	NEW YORK CITY	70.8	+ 9.8	10.3
3.	ALBANY AND SYRACUSE	83.0	+13.4	2.6
4.	BUFFALO AND ROCHESTER	72.0	+12.3	1.9
5.	NORTHERN NEW JERSEY	69.0	+ 9.2	2.9
6.	PHILADELPHIA	79.0	+12.9	6.2
7.	PITTSBURGH	72.9	+ 8.3	3.7
8.	CLEVELAND	83.4	+16.5	2.9
9.	CINCINNATI AND COLUMBUS	88.2	+11.5	3.1
10.	INDIANAPOLIS AND LOUISVILLE	90.0	+11.8	2.6
11.	CHICAGO	88.3	+14.5	6.4
12.	DETROIT	81.0	+28.6	4.0
13.	MILWAUKEE	83.8	+ 9.0	2.2
14.	MINNEAPOLIS AND ST. PAUL	86.1	+ 7.1	4.5
15.	IOWA AND NEBRASKA	77.9	+ 9.4	3.0
16.	ST. LOUIS	82.3	+10.6	2.5
17.	KANSAS CITY	87.7	+ 4.0	3.6
18.	MARYLAND AND VIRGINIA	98.9	+ 9.2	3.8
19.	NORTH AND SOUTH CAROLINA	106.2	+15.3	2.1
20.	ATLANTA AND BIRMINGHAM	110.3	+20.2	3.5
21.	FLORIDA	116.9	+13.5	1.3
22.	MEMPHIS	105.2	+35.4	1.5
23.	NEW ORLEANS	101.5	+14.8	1.0
24.	TEXAS	107.8	+ 8.3	4.5
25.	DENVER	94.0	+ 7.4	1.3
26.	SALT LAKE CITY	88.8	+ 9.8	.8
27.	PORTLAND AND SEATTLE	85.0	+11.3	2.7
28.	SAN FRANCISCO	86.4	+ 5.6	3.4
29.	LOS ANGELES	86.1	+ 5.1	3.9

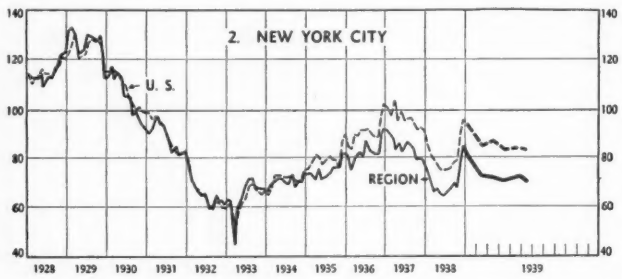
THE REGIONAL TRADE BAROMETERS

These indexes of consumer buying are corrected for seasonal variation; the monthly average for the five years 1928-1932 equals 100 (see preceding page). Charts comparing the indexes for each region with the index for the United States since January, 1928, appear in this number and in the March, 1939, number; it is planned that they will be published semi-annually. Additional information about the indexes and about their usefulness in regional sales quota work, back figures, and data about regional boundaries is available for users of the indexes.



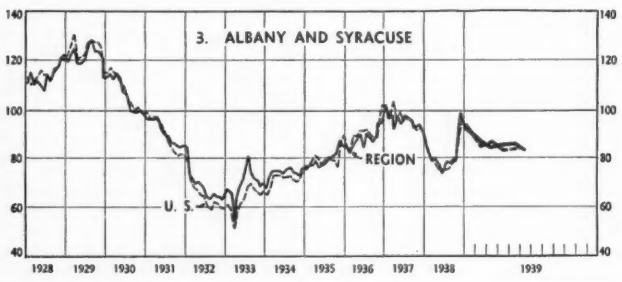
REGION 1: JUNE, 71.0 MAY, 74.2 JUNE 1938, 67.8

JUNE—Percentage department store sales increases over previous June: Bangor 4, Manchester–Burlington 0, Boston 1, Providence 2, New Haven 4. JULY—Percentage retail trade increases over previous July: Boston–Hartford–New Haven 10, New Bedford 20, Springfield 8, Providence–Portland 5, Worcester 3, Manchester 0. Wholesale trade increases: Portland 3, Boston–Springfield 8. Tobacco less injured by drought than other crops. Payrolls and production generally above last year. Gain in textile activity over last year and last month. Machine tool, brass, and copper manufacturing active. Shoe production seasonally dull. Collections vary. AUGUST—Retail sales down in comparison with 1938. Orders of woolen goods up.



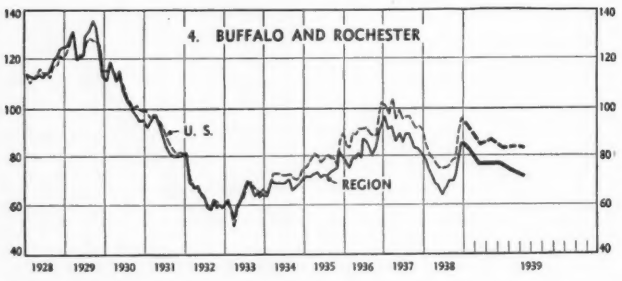
REGION 2: JUNE, 70.8 MAY, 71.9 JUNE 1938, 64.5

JUNE—Percentage department store sales increases over previous June: New York and Brooklyn 2, Bridgeport 9, Westchester–Stamford 11. JULY—Percentage retail trade changes from previous July: Bridgeport —10, New York City department store sales +2, parcel deliveries +6, hotel sales +26. Bank clearings down 6% from year ago in New York City, up 6% in Westchester County. New York City employment and payrolls little changed from June level; large increases reported at knitting mills. Fall production started at men's clothing and shoe firms. AUGUST—Merchandise deliveries increased 7% over last year. One large department store reports 48% gain in sales over 1938. Long Island potato crops hurt by prevailing drought.



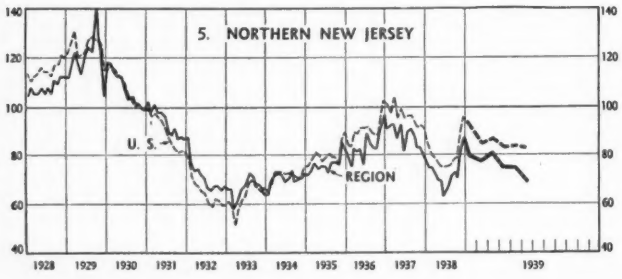
REGION 3: JUNE, 83.0 MAY, 85.2 JUNE 1938, 73.2

JUNE—Percentage department store sales changes from previous June: Syracuse +12, Northern State —4, Central State +4. JULY—Percentage retail trade changes from previous July: Binghamton–Syracuse +4, Albany 0, Utica +2. Wholesale trade changes: Syracuse +2, Albany 0. Sales of sporting goods, auto accessories, vacation supplies up seasonally. Drought has hurt crops and milk production. Some late fruits improved by recent rains. Payrolls and production steady to above 1938. Heating apparatus manufacture slightly more active than last year; shoe production about 75% of capacity. Collections steady to better than last year. AUGUST—Trade activity seasonally dull. Resort and vacation trade below 1938 level.



REGION 4: JUNE, 72.0 MAY, 74.0 JUNE 1938, 64.1

JUNE—Percentage department store sales increases over previous June: Buffalo 5, Rochester 4, Niagara 11. JULY—Percentage retail sales changes from previous July: Buffalo +6, Jamestown +15, Rochester +2, Elmira —8. Buffalo wholesale trade up 5% from the corresponding period of last year. Drought relieved by late rains. Agricultural yield unchanged from last year's level; prices vary, although generally better. Production and payrolls generally improved over last year. Upturn in building construction, steel production, and manufacture of consumers' goods. Collections steady to better than last year and last month. AUGUST—Retail sales 4% ahead of last year. Steel industry continues at 55% of capacity.



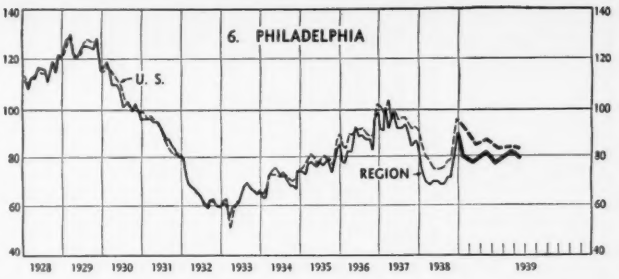
REGION 5: JUNE, 69.0 MAY, 75.3 JUNE 1938, 63.2

JUNE—Northern New Jersey department store sales 3% above previous June level. JULY—Newark retail trade up 6% from previous July; wholesale trade shows gain of 5% from year ago. Seasonal decline of 39 and 10% respectively in Newark retail and wholesale trade from last month. Newark bank clearings show gain of 2% from year ago; for Northern New Jersey a decline of 17% was recorded. Production, sales, employment and payrolls show moderate advances from last year. Manufacture of naval and aviation equipment substantially increased. Collections improved compared with last year, steady with last month. AUGUST—Retail sales ahead of same period last year. Wholesalers report improved Fall orders.

REGION 6: JUNE, 79.0 MAY, 82.3 JUNE 1938, 70.0*

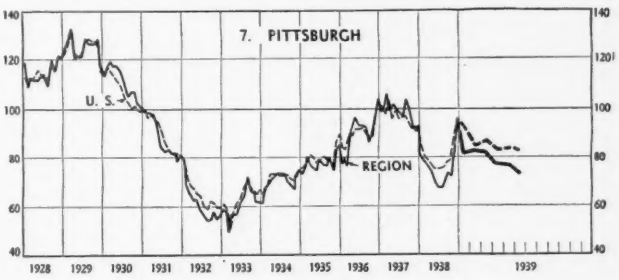
JUNE—Percentage department store sales changes from previous June: Philadelphia +4, Trenton +17, Scranton —2, Harrisburg 0, Wilmington +7. JULY—Percentage retail trade changes from previous July: Philadelphia +2, Lancaster–York–Allentown–Williamsport +5, Wilmington +6, Reading +7, Trenton +12, Harrisburg —5, Wilkes-Barre —3. Philadelphia wholesale trade 15% above a year ago. Wheat harvest good; most crops adversely affected by drought; rain at end of month. Payrolls and production generally above last year. Silk industry retarded by high price of raw materials. Iron, steel, and coal production steady. Collections improved. AUGUST—Philadelphia retail sales 7% above previous August level. Industry up.

*Revised.



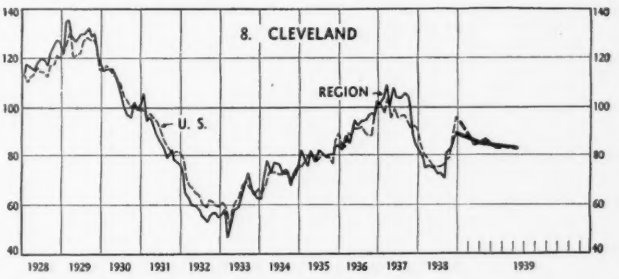
REGION 7: JUNE, 72.9 MAY, 75.5 JUNE 1938, 67.3

JUNE—Percentage department store sales increases over previous June: Pittsburgh–Wheeling 6, West Virginia State 7. JULY—Percentage retail trade increases over previous July: Erie–Huntington 10, Youngstown–Charleston 3. Wholesale trade increases: Erie 10, Pittsburgh 5, Charleston 3. Weather conditions favorable for crops. Payrolls and production generally above 1938. Steel production advanced in July to 45% of capacity; year ago only 27%. Pittsburgh electrical goods manufacturers report substantial orders. Charleston coal production improved; glass, enamelware, and chemical production steady. Collections vary. AUGUST—Department store sales 9% ahead of year ago. Increase in steel and electric power production.



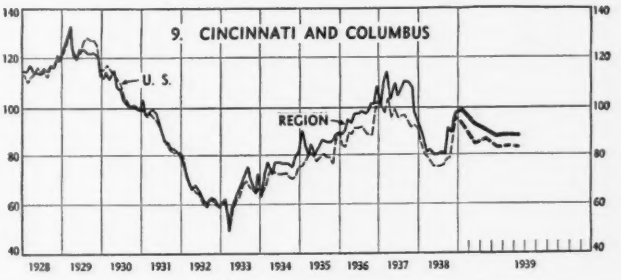
REGION 8: JUNE, 83.4 MAY, 84.1 JUNE 1938, 71.6

JUNE—Percentage department store sales increases over previous June: Cleveland 12, Akron 17, Toledo 14. JULY—Percentage retail trade increases over previous July: Cleveland 11, Akron 12, Toledo 10, Lima 5. Furniture and grocery sales improved. Wholesale trade increases: Cleveland 9, Akron 8, Toledo 10. Electrical appliance and hardware sales good. Crop conditions satisfactory. Payrolls and production steady to better than last year. Steel, textiles, rubber, and oil industries steady, without seasonal letdown. Strike in the automobile industry hampered production. Collections steady to good. AUGUST—Cleveland department store sales 6% above last year. Nonresidential building greatly improved. Steel at 73% capacity.



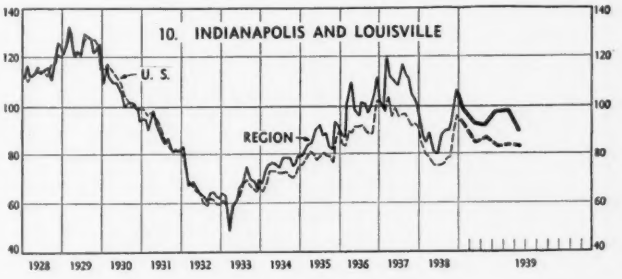
REGION 9: JUNE, 88.2 MAY, 89.2 JUNE 1938, 79.1

JUNE—Department store sales in Columbus and Cincinnati increased 8% over previous June. JULY—Percentage retail trade increases over previous July: Cincinnati 7, Dayton–Springfield–Zanesville 5, Columbus 4. Wholesale trade increases: Cincinnati 10, Columbus 15. Corn and other crop yields good; prices steady or lower than last year's level. Dairy production steady. Production and payrolls steady to improved over a year ago. Zanesville glass manufacturing good, pottery plants closed for inventory; steel mills working 40% capacity. Collections steady. AUGUST—Cincinnati department store sales 5 to 20% ahead of last year. Wholesale dry goods distribution up 15 to 20%. Clothing at peak production, orders 30% ahead of 1938.



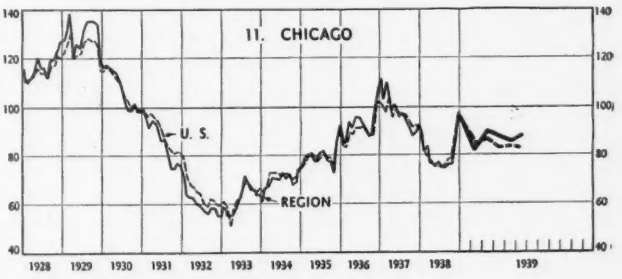
REGION 10: JUNE, 90.0 MAY, 97.7 JUNE 1938, 80.5

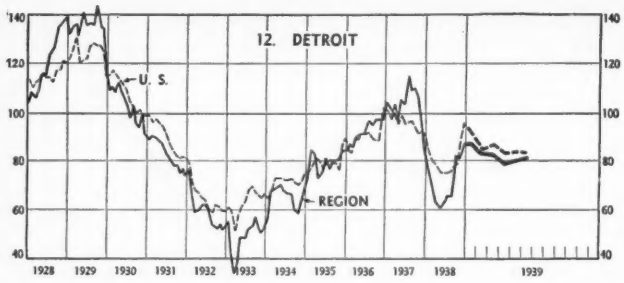
JUNE—Percentage department store sales increases over previous June: Louisville 9, Indianapolis 12, Fort Wayne 11. JULY—Percentage retail trade changes from previous July: Louisville +4, Evansville–Indianapolis–Terre Haute +5, Fort Wayne —5. Retail furniture sales 20% below last month. Wholesale trade changes: Louisville +5, Indianapolis —7. Prices of farm products and cattle good; crops in satisfactory condition. Payrolls and production steady to better than at same time last year. Manufacture of wood products increased. Collections steady. AUGUST—Indianapolis retail sales 9% ahead of last year, 5% ahead of last month. Manufacturers of varnish and lacquers in Louisville report 25% gain over last year.



REGION 11: JUNE, 88.3 MAY, 86.3 JUNE 1938, 77.1

JUNE—Percentage department store sales increases over previous June: Chicago 10, Peoria 8. JULY—Percentage retail trade increases over previous July: Chicago +3, Rockford 0, Peoria +5, South Bend +20. Gains in sales of used cars and apparel. Chicago wholesale trade increased 8% from previous year's level. Corn crop exceptionally fine; oats only moderately good. Price of corn improved; hog prices down. Payrolls and production generally improved from last year, down from last month. Machine tool production and grey iron foundry output increased. Collections generally improved. AUGUST—Department store sales 5% above last year. Wholesale sales substantially improved. Decline in livestock processing activity.



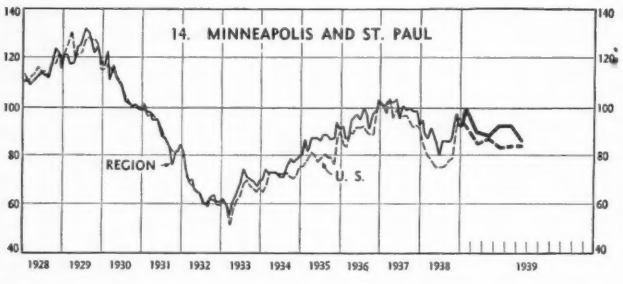


REGION 12: JUNE, 81.0 MAY, 79.9 JUNE 1938, 63.0

JUNE—Detroit department store sales increased 20% over previous June level. JULY—Percentage retail trade increases over previous July: Detroit 10, Grand Rapids 8, Saginaw 5. Automobile sales up 40 to 50% from year ago. Wholesale trade increases: Detroit 12, Grand Rapids 10. Drought broken at end of month. Grain, corn, and berry crops good. Prices and production generally unchanged or improved over last year. Automobile production slack because of vacations and model change; strike in some plants. Collections steady to improved. AUGUST—Retail trade slightly improved over last month. Motor output at seasonal low, anticipating model change-over. Strikes in automobile plants settled.

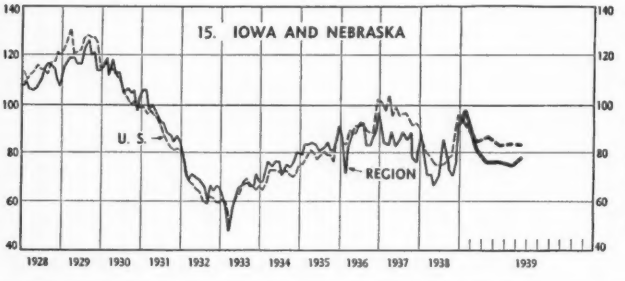
REGION 13: JUNE, 83.8 MAY, 82.1 JUNE 1938, 76.9

JUNE—Milwaukee department store sales increased 11% over previous June level. JULY—Percentage retail trade increases over previous July: Milwaukee 3, Green Bay 5. Milwaukee wholesale trade increased 5% over last year's level. Grain crops in good shape although rains badly needed. Prices low but somewhat improved; milk prices up somewhat. Payrolls and production steady to improved in comparison with 1938 level, even with last month. Metal trades manufacture improved, electric supplies and motor equipment activity somewhat advanced. Collections steady with last month and last year. AUGUST—Milwaukee retail sales 36% above last year, up slightly from last month. Canning crop acreage considerably reduced.



REGION 14: JUNE, 86.1 MAY, 92.7 JUNE 1938, 80.4

JUNE—Minneapolis–St. Paul–Duluth–Superior department store sales 3% above previous June. JULY—Percentage retail trade changes from previous July: St. Paul–Great Falls +5, Billings +12, Butte +10, Minneapolis —1, Duluth —8, Sioux Falls +3, Fargo —5. Wholesale trade changes: Great Falls —5, Minneapolis +5, Duluth —8. Spring wheat injured by heat; Winter wheat in good condition. Corn and tobacco crops generally good; some corn hurt by grasshoppers. Payrolls and production steady to improved over 1938. Improvement in sales of agricultural implements. Flour and linseed oil market steady. Iron shipments double last year's. Collections fair to slow. AUGUST—St. Paul retail sales 5% above 1938.

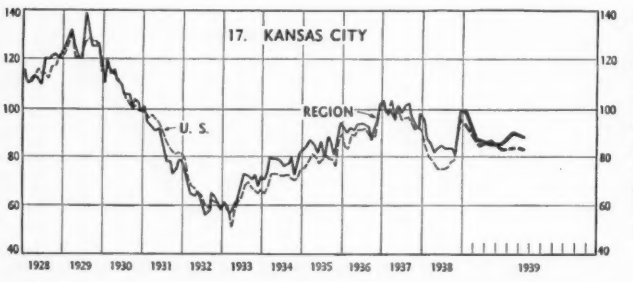


REGION 15: JUNE, 77.9 MAY, 73.8 JUNE 1938, 71.2

JUNE—Omaha retail trade 5% above previous June. JULY—Percentage retail trade changes from previous July: Omaha +3, Cedar Rapids–Dubuque–Des Moines–Sioux City +5, Waterloo +4, Davenport–Burlington +10, Lincoln —5. Wholesale trade increases: Sioux City 4, Des Moines 5, Omaha 5. Corn in eastern Iowa in good condition; other Iowa and Nebraska corn adversely affected by drought; wheat, oats and hay crops below normal. Payrolls and production vary in comparison with corresponding period of last year. Meat packing activity improved; farm implement and heavy machine orders increased. Collections steady. AUGUST—Omaha retail sales up 15% from previous week, down 1% from last year's level.

REGION 16: JUNE, 82.3 MAY, 93.4 JUNE 1938, 74.4

JUNE—Percentage department store sales increases over previous June: St. Louis 7, Quincy 6, Springfield (Mo.) 12. JULY—Percentage retail trade changes from previous July: St. Louis +5, Springfield (Ill.) —10, Springfield (Mo.) +7, Quincy +6. St. Louis wholesale trade up 5% from a year ago. Bumper wheat harvest and good truck farming crops; good prospects for corn yield. Farm prices low. Production and payrolls steady to above last year. St. Louis stove manufacturers report 100% increase in sales over July 1938. Chemical producers report gain in sales. Wholesale and retail textile orders improved. Collections vary. AUGUST—St. Louis retail trade 4 to 7% above last year. Expansion noted in wholesale orders.

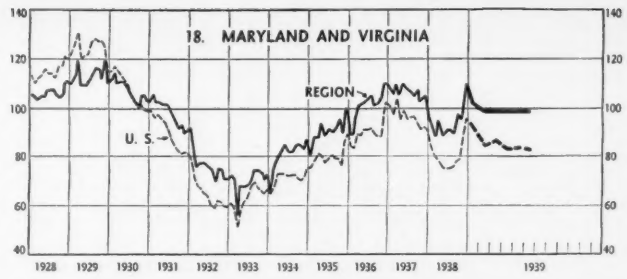


REGION 17: JUNE, 87.7 MAY, 90.7 JUNE 1938, 84.3

JUNE—Percentage department store sales changes from previous June: Kansas City +3, Oklahoma City +2, Wichita +1, Tulsa —2. JULY—Percentage retail trade changes from previous July: Oklahoma City +4, Wichita–Tulsa–Kansas City 0, St. Joseph —5, Topeka —1. Wholesale trade changes: Kansas City +7, Oklahoma City +3. Wheat crop better than last year; drought reduced corn to 25% normal yield; recent rains improved remaining corn and pasturage. Farm prices low. Production and payrolls vary in comparison with last year. Wichita aircraft manufacturing active. St. Joseph livestock receipts ahead of 1938. Oklahoma oil activity spotty. Collections steady. AUGUST—Retail trade improved over last month and last year.

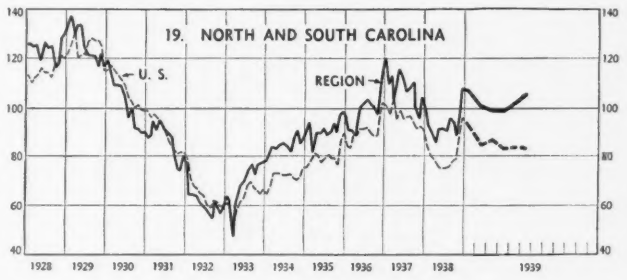
REGION 18: JUNE, 98.9 MAY, 98.7 JUNE 1938, 90.6

JUNE—Percentage department store sales changes from previous June: Washington +2, Richmond +10, Baltimore —1, Virginia State +10. JULY—Percentage retail trade increases over previous July: Baltimore–Norfolk +2, Washington +7, Lynchburg–Bristol +3, Roanoke —2. Furniture sales ahead of last year. Percentage wholesale trade increases: Baltimore 2, Norfolk 8, Richmond 15, Ample rain; all crops in good condition. Tobacco acreage above last year's amount. Prices fair to low. Payrolls and production steady to above last year. Shoe, overall, and cigarette manufacturing improved. Cotton goods production lower than last month but above last year. AUGUST—Retail trade steady with last month and last year.



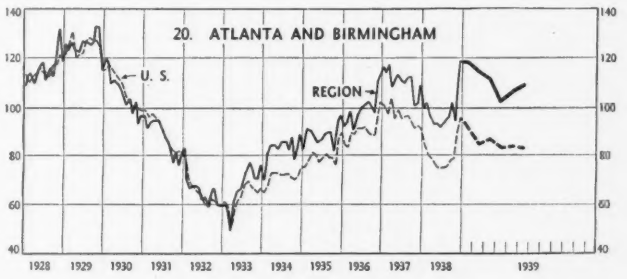
REGION 19: JUNE, 106.2 MAY, 102.7 JUNE 1938, 92.1

JUNE—Percentage department store sales changes from previous June: North Carolina —1, South Carolina +19. JULY—Percentage retail trade changes from previous July: Asheville —4, Winston-Salem 0, Charlotte +4, Columbia–Wilmington +2, Raleigh–Charleston +5, Greenville +16. Percentage wholesale trade changes: Wilmington–Winston-Salem 0, Charleston +5. Tobacco crop in good condition; truck farming yield satisfactory. Cotton, tobacco, and truck farming prices generally low. Production and payrolls steady to improved in comparison with last year. Building permits increased. Tourist trade below normal due to infantile paralysis scare. Collections vary. AUGUST—Retail trade volume increased 8% over 1938.



REGION 20: JUNE, 110.3 MAY, 106.5 JUNE 1938, 91.8

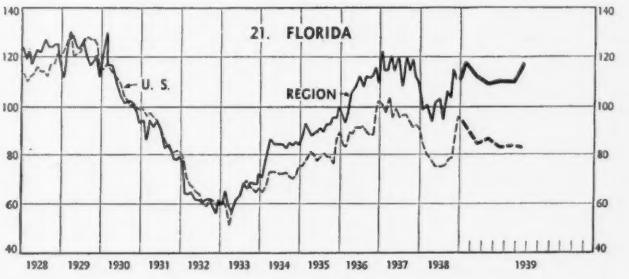
JUNE—Percentage department store sales increases over previous June: Atlanta 13, Birmingham 23, Montgomery 27, Chattanooga 17, Nashville 8. JULY—Percentage retail trade increases over previous July: Atlanta–Montgomery–Knoxville 12, Columbus–Birmingham 15, Savannah–Nashville 10, Macon–Augusta 5, Mobile 0. Wholesale trade increases: Atlanta 15, Birmingham–Nashville 10. Cotton crop in good condition; corn and tobacco crops fair. Payrolls and production steady to improved compared with last year. Birmingham steel operations well ahead of last year. Augusta textiles improved. Collections steady. AUGUST—Steel operations continue at 84% ingot capacity, considerably ahead of national level.



REGION 21: JUNE, 116.9 MAY, 111.5* JUNE 1938, 103.0

JUNE—Florida department store sales 12% above previous June level. JULY—Percentage retail trade increases over previous July: Jacksonville 3, Miami 8, Tampa 15. Wholesale trade increases: Jacksonville 14, Tampa 10. Central and Southern crops out of season; scattered shipments of eggplants, peppers, and avocados from Jacksonville. Citrus crop in very good condition. Tobacco prices lower than in 1938. Production and payrolls steady to lower than year ago. Lumber and naval stores production steady with June. Jacksonville and Tampa cigar production improved. Increase in building activity. Collections steady. AUGUST—Department store sales considerably below last month, well above last year. Cigar factories running at capacity.

* Revised.

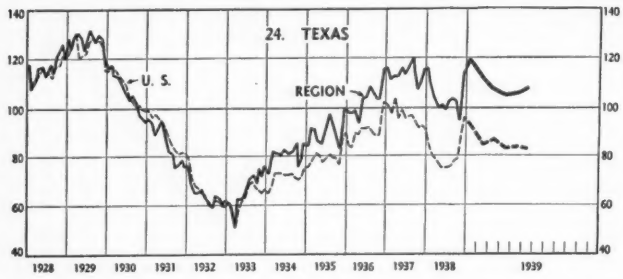


REGION 22: JUNE, 105.2 MAY, 93.5 JUNE 1938, 77.7

JUNE—Percentage department store sales changes from previous June: Memphis +15, Little Rock +13, Fort Smith —6. JULY—Percentage retail trade changes from previous July: Memphis +5, Fort Smith +3, Little Rock +7. Memphis wholesale trade up 5% from last year. Crops generally good; cotton prospects favorable; other produce may be hurt by hot weather. Payrolls and production steady or better than last year. Chicago furniture market activity about 30% ahead of last year. Large glass firm reopened in Fort Smith. Collections steady compared to last month and last year. AUGUST—Retail sales about 5% ahead of the corresponding period of last year. Wholesale dry goods trade about even with activity at the same time in 1938.

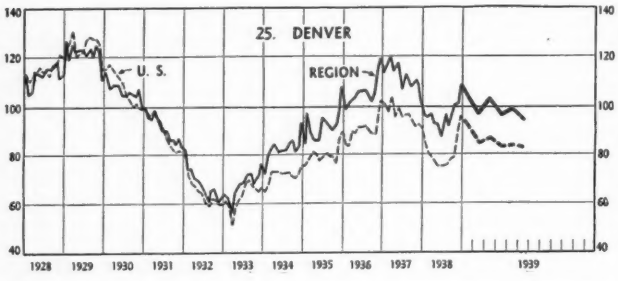
REGION 23: JUNE, 101.5 MAY, 98.4 JUNE 1938, 88.4

JUNE—New Orleans department store sales off 5% from previous June level. JULY—Percentage retail sales changes from previous July: New Orleans +10, Jackson +8, Meridian —10. New Orleans wholesale trade increased 10% over last year. Cotton and rice crops maturing in satisfactory condition, although cotton crop smaller than last year. Farm prices higher than a year ago. Oil production slower than corresponding period of 1938. Cotton ginning and rice threshing begun. AUGUST—Department store sales show sharp drop from last month's level, off 7% from level of last year. Wholesale trade increased 10%; future orders good. Southern pine mills report orders substantially lower than year ago.



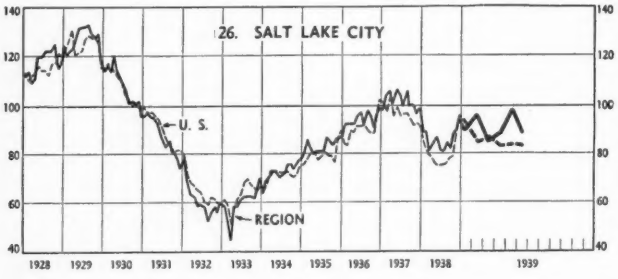
REGION 24: JUNE, 107.8 MAY, 106.4 JUNE 1938, 99.5

JUNE—Percentage department store changes from previous June: Fort Worth +5, San Antonio —5, Dallas–Houston —1. JULY—Percentage retail trade changes from previous July: Dallas +2, Fort Worth +7, Amarillo–Lubbock–San Antonio +5, Wichita Falls —10, El Paso–Shreveport —9, Waco–Houston +1, Galveston–Austin —5. Wholesale trade changes: Dallas +10, Houston +2, Shreveport +5, San Antonio —4. Northern crops satisfactory; Southern yields severely cut by drought. Farm prices slightly lower to even with 1938. Payrolls and production steady with year ago. Construction active. Oil industry slow. Collections steady to slow. AUGUST—Department store sales increased 4% over last year; textile bookings active.



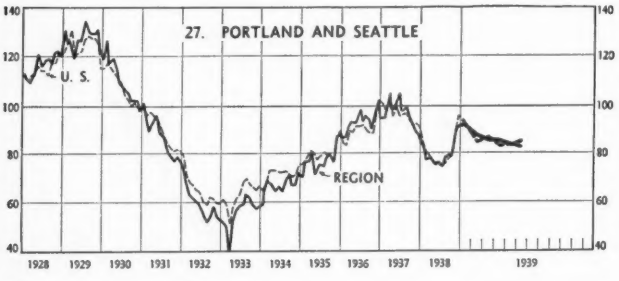
REGION 25: JUNE, 94.0 MAY, 99.3 JUNE 1938, 87.5

JUNE—Department store sales in Denver increased 2% over previous June level. JULY—Denver–Albuquerque retail trade up 5% from a year ago. Denver wholesale trade increased 2% over last year's comparative level; retail and wholesale estimates unchanged from last month. Fruit and grain crops, except rye and peaches, show poorest yield in several years; bean crops and range lands improved by rains. Production and payrolls steady to improved in comparison with the corresponding period of last year and last month. Railroad activity improved. Collections steady or better. AUGUST—Retail sales improved 5% over last year and 2% over previous week. Alfalfa harvest in progress. Livestock in good condition.



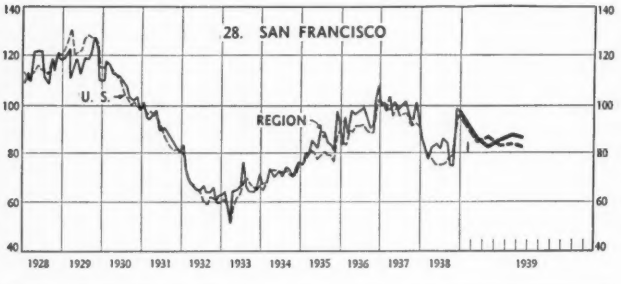
REGION 26: JUNE, 88.8 MAY, 98.1 JUNE 1938, 80.9

JUNE—Salt Lake City department store sales 1% below previous June level. JULY—Retail and wholesale sales advanced 5% over previous July level. Cleaning and pressing activity advanced 10%. Sales of lumber and building supplies increased 8%; furniture sales 15% above last year. Grain crops and range lands adversely affected by dry weather. Payrolls and production steady compared with last year's level and above last month's. Canning operations begun. Metal mining improved slightly. Collections steady to slow compared with last month and last year. AUGUST—Lumber and building material dealers report volume 10% ahead of last year. Electrical equipment orders 15% ahead of last year, largely due to replacement demand.



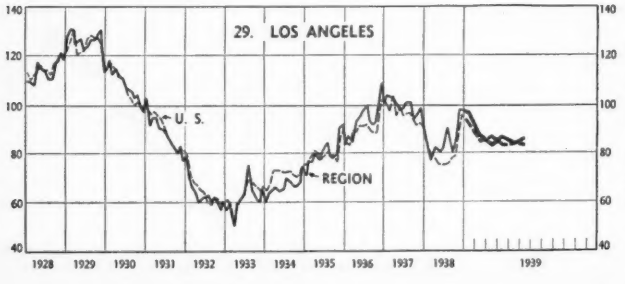
REGION 27: JUNE, 85.0 MAY, 83.9 JUNE 1938, 76.4

JUNE—Percentage department store sales increases over previous June: Seattle 8, Spokane 0, Portland 4, Tacoma 16. JULY—Percentage retail trade increases over previous July: Seattle 10, Spokane 3, Portland 8, Tacoma trade up slightly. Seattle motor car sales increased 74% over last year; smaller increases in sales of lumber, furniture, dry goods, and jewelry. Wholesale trade changes: Seattle —8, Portland +3. Wheat crop fairly good, fruit above average. Production and payrolls good compared with last year. Production of lumber, furniture, and cement up; carloadings and shipping increased. Decline in dairying activity. Salmon run late. Collections vary. AUGUST—Retail sales gained 10% over last month.



REGION 28: JUNE, 86.4 MAY, 87.0* JUNE 1938, 81.8

JUNE—Percentage department store sales changes from previous June: Oakland +5, San Francisco 0. JULY—Percentage retail sales changes from previous July: San Francisco +5, Sacramento —5, Fresno —10. Wholesale trade in San Francisco increased 4% from last year's level. Fruit in better condition than last year but prices low. Sugar beet acreage increased; drought continues in some areas. Production and payrolls vary in comparison with last year. Agricultural employment decreased. Canning industry operating at full capacity. Cement manufacture and shipbuilding active. Labor troubles in meat industry. Collections steady to slow. AUGUST—Department store sales down 1% from year ago; wholesale volume increased. * Revised.



REGION 29: JUNE, 86.1 MAY, 83.6 JUNE 1938, 81.9

JUNE—Percentage department store sales increases over previous June: Los Angeles 0, Arizona +3. JULY—Percentage retail trade changes from previous July: Los Angeles 0, Phoenix 0. Los Angeles wholesale trade up slightly from previous July. Orange prices lowest for any July in 25 years. Avocado shipments unusually heavy. Arizona water shortage serious with respect to cotton crop and range lands. Production and payrolls improved compared with year ago. Aircraft manufacturing, gasoline refining improved. Building activity slower. Motion picture production seasonally slow. Prolonged lumber yard strike settled. Collections steady or improved. AUGUST—Retail trade steady with last week and last year.

INDUSTRIAL AND COMMERCIAL FAILURES

	Number of Failures			Current Liabilities **			Total Liabilities **			Dun's Insolvency Index † Unadjusted			Dun's Insolvency Index † Adjusted ‡		
	1939	1938	1937	1939	1938	1937	1939	1938	1937	1939	1938	1937	1939	1938	1937
Jan.	1,263	1,377	841	19,122	21,415	12,003	23,192	27,162	14,992	69.3	76.2	47.7	56.3	62.0	38.8
Feb.	963	1,149	755	12,788	21,028	14,004	12,795	25,501	22,887	62.5	75.2	50.6	54.3	65.4	44.0
Mar.	1,123	1,167	861	17,915	40,325	22,591	18,228	80,373	78,878	58.1*	64.8	47.1	57.5*	64.2	47.1
Apr.	1,140	1,172	818	17,492	21,147	12,893	20,750	29,355	13,628	58.5*	65.1	48.3	56.8*	63.2	47.4
May	1,122	1,123	875	14,757	19,139	13,088	19,594	19,831	14,965	54.3*	59.8	47.6	53.8*	59.2	47.6
June	952	1,073	703	11,609	15,918	12,829	11,765	16,892	16,737	50.3*	64.1	41.1	52.4*	67.5	43.3
July	917	1,038	651	14,150	14,761	12,780	22,785	15,008	13,955	48.3	57.2	37.9	54.3	64.3	42.1
Aug.	....	1,015	736	....	16,382	14,950	....	17,252	19,473	...	53.8	39.7	...	63.3	46.7
Sept.	....	866	584	....	14,341	9,818	....	15,183	11,308	...	51.6	35.2	...	61.4	41.9
Oct.	....	997	815	....	13,219	14,079	....	16,960	15,381	...	54.7	45.2	...	59.4	49.1
Nov.	....	984	842	....	12,302	16,400	....	17,281	17,709	...	53.9	52.7	...	51.8	51.2
Dec.	....	875	1,009	....	36,528	27,818	....	54,736	36,963	...	56.7	58.0	...	56.1	58.0
Total	....	12,836	9,490	....	246,505	183,253	....	335,534	276,876	...	61.1	45.9	...	...	...

** In thousands of dollars. † Apparent annual failures per 10,000 enterprises. ‡ For seasonal variation. * Revised. See text.

ANALYZING THE RECORD OF INDUSTRIAL *and* COMMERCIAL FAILURES

A LESS THAN SEASONAL DROP IN JULY

THERE were 917 industrial and commercial failures reported during the month of July, compared with 952 in June and 1,038 in July, 1938. The decline from June was confined to small failures; larger failures increased in number, so that current liabilities rose from $11,609,000 to $14,150,000 and total liabilities from $11,765,000 to $22,785,000. A year ago current liabilities amounted to $14,761,000 and total liabilities to $15,008,000.

The insolvency index, which corrects for the number of working days in a month and relates failures to the number of concerns in business, reflected the July drop by declining from 50.3 in June to 48.3. This decline was less than seasonal and the adjusted index rose from 52.4 to 54.3—the first rise in the adjusted index since March.

Revision of the Index

It has been evident for some months that the proportion of very small failures has been steadily increasing. A close scanning of the records leads us to believe that the cause lies in more complete reporting by the branch offices of certain types of failures, following the issuance of revised instructions toward the end of 1938 when the enactment of the Chandler Act made such a step necessary. The instructions did not change previous rules with regard to the reporting of any types of failure other than corporate reorganizations and arrangements, but apparently served to emphasize the fact that voluntary discontinuances and small concerns forced out of business through foreclosure, attachments, executions, etc., should be reported as failures if loss to creditors ensued.

An excess of these types of failures over the proportion that they bore to total failures in 1938 has appeared in the records since March, and as a result the current level of failures has appeared to be higher than it would have been on a strictly comparable basis. It has therefore been decided to eliminate from the record, *for the purpose of computing the insolvency index,* the excess, which can be attributed to the use of the more exact definition. This amounted to 66 failures in March, 76 in April, 94 in May, 105 in June, and 32 in July.

The elimination of these failures lowered the insolvency index from 3.6 points in March to 6.2 points in June. The July index is only 1.9 points lower than if it were based on the full number of failures reported.

The additional small failures have not as yet been eliminated from any of the tables. Since these types of failures have always been reported from the field to some extent, with the exception of New York City, there is no reason to believe that the excess is not well distributed industrially and geographically, although proportionately the greatest number would come from the large cities, particularly Chicago and Philadelphia. If it can be determined which are the failures that make up the excess they will be eliminated from all the failure tables in the next issue.

All failures taken out will be thrown back into the record beginning with January, 1940, when an overlap can be provided. At that time additional New York City failures of these types now being held out will be added to the record.

The effect of eliminating the additional failures from the small size group can be easily measured in advance. Instead of increasing in number over those in the second size group since March, as the diagram now shows, the number of very small failures would have continued to run somewhat below those in the other group, and their proportion to the whole would have remained between 41 and 43 per cent, instead of rising as high as 49 per cent in June.

July Failure Record

Most of the July decline occurred in the two minor groups, construction and commercial service, in both of which failures dropped very sharply. Wholesale and retail trade failures were practically unchanged at June levels and manufacturing failures increased 13 per cent, from 166 to 188. In three years out of the six since 1934 manufacturing failures showed an increase instead of a decrease in July.

The levels of all main industry groups were well below those of a year ago.

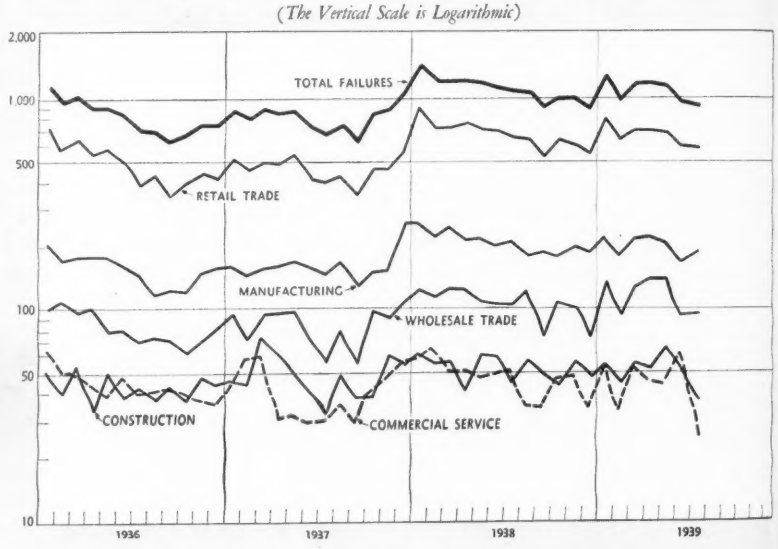
Industry Group	July 1939	July 1938	Per Cent Change
Manufacturing	188	210	—10
Wholesale Trade ..	92	103	—11
Retail Trade	574	629	— 9
Construction	37	45	—18
Commercial Service	26	51	—49
Total	917	1,038	—12

The current manufacturing rise was well distributed, with only three lines —chemicals, leather, and iron and steel —reporting fewer failures than in June. In retail trade most individual lines experienced fewer failures than in June, as was seasonally natural, but a noticeable jump in apparel shop failures cancelled the decreases. The big drop in commercial service failures was spread through all service lines, but was most

MONTHLY TREND OF THE INSOLVENCY INDEX

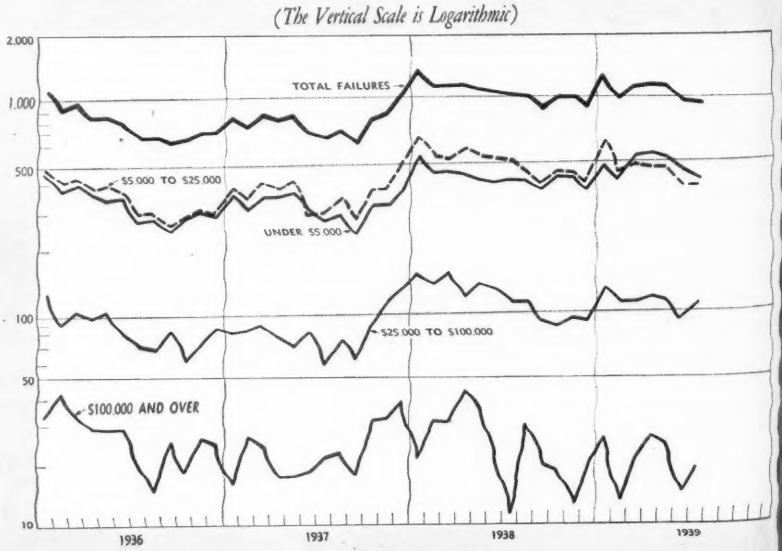
FAILURES BY INDUSTRIAL GROUPS

(The Vertical Scale is Logarithmic)



FAILURES BY SIZE OF LIABILITIES

(The Vertical Scale is Logarithmic)



apparent in trucking companies and barber shops, lines in which failures were in excess of normal last month.

As noted before, small failures with liabilities under $25,000 decreased in July, while the larger failures increased: those with liabilities between $25,000 and $100,000 from 92 in June to 104, and those with debts of $100,000 or more from 14 to 18.

It is worthy of note that at this time of the year failures among retailers of substantial size should increase from 24 to 42. The entire group of failures with liabilities between $25,000 and $100,000 accounted for 11.4 per cent of all failures, which was the highest proportion this group has reached since June, 1928, when it comprised 11.8 per cent to the total.

Size of Liabilities	July 1939	July 1938	Per Cent Change
Under $5,000	413	415	0
$5,000–$25,000	382	506	—25
$25,000–$100,000	104	106	— 2
$100,000–$1,000,000	15	11	+64
$1,000,000 and over	3	..	..
Total	917	1,038	—12

Failures in the Chicago, Minneapolis, Kansas City, and Dallas Federal Reserve Districts followed the seasonal downward course in July, but in the New York, Philadelphia, Richmond, and San Francisco districts there was little change from the numbers reported in June, and in the Boston, Cleveland, St. Louis, and Atlanta districts failures were noticeably up.

Many of the big cities failed to report any drop in July failures, and in New York City, the largest of them all, and a city which is not affected in any way by the problem of additional cases, failures increased 10 per cent.

Federal Reserve District	Jan.-July 1939	Jan.-July 1938	Per Cent Change
St. Louis	236	327	—28
Boston	576	778	—26
Cleveland	529	603	—12
New York	2,065	2,361	—13
San Francisco	779	892	—13
Chicago	1,224	1,262	— 3
Minneapolis	138	142	— 3
Richmond	366	374	— 2
Atlanta	405	394	+ 3
Kansas City	385	339	+14
Philadelphia	562	480	+17
Dallas	215	147	+46
Total	7,480	8,099	— 8

Failures by Divisions of Industry—July, 1939 and 1938

(Current liabilities in thousands of dollars)

	Number			Liabilities		
	July 1939	June 1939	July 1938	July 1939	June 1939	July 1938
Total United States	917	952	1,038	14,150	11,609	14,761
Manufacturing (total)	188	166	210	6,702	4,468	5,957
Foods	49	40	32	2,368	1,057	2,743
Textiles	40	32	58	1,130	1,147	991
Forest Products	15	12	24	212	215	389
Paper, Printing and Publishing	19	12	20	260	216	293
Chemicals and Drugs	3	7	7	32	97	100
Fuels	6	5	2	1,017	341	295
Leather and Leather Products	5	11	7	213	199	221
Stone, Clay, Glass and Products	6	5	6	263	79	350
Iron and Steel	6	13	14	53	313	258
Machinery	14	8	13	773	276	291
Transportation Equipment	1	4	3	58	45	150
All Other	24	17	24	323	483	476
Wholesale Trade (total)	92	91	103	2,069	1,633	2,426
Farm Products, Foods, Groceries	36	37	25	810	632	515
Clothing and Furnishings	3	3	10	43	16	112
Dry Goods and Textiles	2	4	2	42	206	90
Lumber, Building Materials, Hardware	8	5	11	59	153	547
Chemicals and Drugs	6	4	4	199	67	30
Fuels	4	1	2	125	16	473
Automotive Products	6	3	8	168	28	93
Supply Houses	7	8	10	89	76	130
All Other	20	26	31	534	439	436
Retail Trade (total)	574	585	629	4,686	3,849	5,385
Foods	156	164	157	950	636	920
Farm Supplies, General Stores	20	22	17	276	184	122
General Merchandise	27	30	30	174	163	447
Apparel	139	118	135	1,151	775	995
Furniture, Household Furnishings	37	34	48	249	320	551
Lumber, Building Materials, Hardware	28	31	34	252	297	418
Automotive Products	40	49	59	400	357	700
Restaurants	58	67	70	629	524	662
Drugs	32	36	35	302	290	233
All Other	37	34	44	303	303	337
Construction (total)	37	50	45	362	1,150	376
General Contractors	4	4	6	24	238	60
Carpenters and Builders	10	17	14	142	290	142
Building Sub-contractors	23	28	25	196	552	174
Other Contractors	..	1	..	..	70	..
Commercial Service (total)	26	60	51	331	509	617
Cleaners and Dyers, Tailors	8	10	11	114	30	73
Haulage, Buses, Taxis, etc.	6	14	19	48	170	240
Hotels	4	2	2	111	35	48
Laundries	..	6	4	..	60	94
Undertakers	3	3	8	19	14	85
All Other	5	25	7	39	200	77

Canadian Failures

Failures in July rose to 93 from 83 in June and 72 in July, 1938. Liabilities to the amount of $756,000 were in excess of June liabilities of $514,000, but were somewhat under the $826,000 reported a year ago. The increase over June occurred in retail trade and entirely within the larger cities.

Note: In Dun's Statistical Review there are published more detailed failure statistics by States, large cities, industrial divisions, and size of liabilities.

SIGNIFICANT BUSINESS INDICATORS

COMPILED BY THE STATISTICAL STAFF OF "DUN'S REVIEW"

More detailed figures appear in "Dun's Statistical Review"

Building Permit Values—215 Cities

Geographical Groups:	July 1939	July 1938	Change P. Ct.	June 1939	Change P. Ct.
New England	*$8,097,402*	*$5,072,926*	*+ 59.6*	*$5,634,786*	*+ 43.7*
Middle Atlantic	26,867,974	82,825,033	— 67.6	37,032,363	— 29.4
South Atlantic	12,243,156	8,566,323	+ 42.9	13,947,785	— 6.2
East Central	21,315,897	16,561,129	+ 28.7	24,998,187	— 14.7
South Central	11,210,553	7,920,962	+ 41.5	10,552,508	+ 6.2
West Central	*5,306,726*	*4,061,145*	*+ 30.7*	*9,631,151*	*— 44.9*
Mountain	2,604,066	1,439,388	+ 81.0	2,452,827	+ 6.2
Pacific	15,104,671	14,356,658	+ 5.2	17,562,645	— 14.0
Total U. S.	$102,750,445	$140,803,564	— 27.0	$120,912,252	— 15.0
New York City	*$16,349,395*	*$72,966,921*	*— 77.6*	*$21,627,830*	*— 24.4*
Outside N. Y. C.	$86,401,050	$67,836,643	+ 27.4	$99,284,422	— 13.0

Bank Clearings—22 U. S. Cities

(Millions of dollars)

	Monthly			Daily Average		
	1939	1938	1937	1939	1938	1937
January	*23,187*	*21,798*	*27,226*	*927.5*	*871.9*	1,089.0
February	19,711	17,584	23,720	896.0	799.2	1,078.1
March	24,995	22,822	29,412	925.7	845.3	1,089.3
April	*21,798*	*21,667*	*26,086*	*871.9*	*833.4*	*1,003.3*
May	22,188	20,169	23,951	853.4	806.8	958.0
June	23,022	23,959	25,903	885.5	921.5	996.3
July	21,386	21,624	26,015	855.4	865.0	1,000.6
August	.....	19,716	22,260	....	730.2	856.2
September	.....	*21,733*	*24,076*	....	869.3	963.0
October	.....	24,011	24,668	....	960.4	986.7
November	.....	21,637	21,796	....	940.7	947.6
December	.....	*27,697*	*25,805*	....	*1,065.3*	*992.5*
Total	.....	264,417	300,918	....	875.8	996.7

Bank Clearings for Individual Cities (000 omitted)

	July 1939	July 1938	Change P. Ct.	June 1939
Boston	*$921,774*	*$883,259*	*+ 4.4*	$911,092
Philadelphia	1,562,000	1,466,000	+ 6.5	1,729,000
Buffalo	130,465	125,246	+ 4.2	145,649
Pittsburgh	*491,832*	*449,388*	*+ 9.4*	*489,833*
Cleveland	409,440	355,992	+ 15.0	410,077
Cincinnati	245,298	226,716	+ 8.2	247,220
Baltimore	290,237	266,252	+ 9.0	*305,366*
Richmond	167,724	146,329	+ 14.6	166,493
Atlanta	*238,500*	204,700	+ 16.5	232,515
New Orleans	163,745	138,903	+ 17.9	156,927
Chicago	1,230,042	1,198,774	+ 2.6	1,349,196
Detroit	*400,879*	*338,291*	*+ 18.5*	*396,945*
St. Louis	369,581	338,508	+ 9.2	387,056
Louisville	144,759	129,421	+ 11.9	143,361
Minneapolis	*281,076*	*274,592*	*+ 2.4*	*298,706*
Kansas City	458,083	426,683	+ 7.4	390,089
Omaha	128,332	124,721	+ 2.9	125,371
Dallas	223,454	197,695	+ 13.0	222,512
San Francisco	593,985	598,201	— 0.7	576,839
Portland, Ore.	*129,969*	*122,253*	*+ 6.3*	128,866
Seattle	152,687	143,615	+ 6.3	151,865
Total 21 Cities	$8,733,862	$8,155,539	+ 7.1	$8,964,978
New York	$12,651,653	$13,468,737	— 6.1	$14,057,293
Total 22 Cities	$21,385,515	$21,624,276	— 1.1	$23,022,271

Dun & Bradstreet
Weekly Food Price Index

The index represents the sum total of the *wholesale price per pound of 31 commodities* in general use.

Weeks:	*1939*	*1938*	*1937*	*1936*
Aug. 22	$2.14	$2.42	$2.87	$2.82
Aug. 15	2.13	2.41	2.90	2.85
Aug. 8	2.15	2.44	2.90	2.82
Aug. 1	2.17	2.46	2.90	2.84
July 25	*2.14*	*2.47*	*2.88*	*2.77*
July 18	2.14	2.46	2.88	2.76
July 11	2.16	2.46	2.90	2.74
July 4	*2.17*	*2.41*	*2.90*	*2.76*

	High		Low	
1939	*$2.34*	*Mar. 7*	*$2.13*	*Aug. 15*
1938	$2.53	Jan. 4	$2.34	May 10
1937	$3.01	Mar. 16	$2.56	Dec. 28

Dun & Bradstreet
Daily Weighted Price Index
30 Basic Commodities
(1930-1932 = 100)

	1939			
	Aug.	*July*	*June*	*May*
1	102.81	*	107.07	104.77
2	102.90	†	106.97	105.02
3	102.56	104.91	*	105.10
4	102.44	*	†	105.44
5	*	104.80	106.82	105.82
6	†	104.86	106.62	106.01
7	102.42	104.57	106.83	†
8	*102.11*	*	*106.77*	*105.99*
9	102.45	†	106.75	106.61
10	102.22	103.87	*	106.70
11	*102.31*	*103.95*	†	*107.54*
12	*	103.48	106.36	107.44
13	†	103.31	106.35	107.39
14	102.29	103.09	*106.41*	†
15	102.24	*	106.09	106.61
16	102.14	†	106.04	106.64
17	102.37	102.76	*	106.67
18	102.55	102.76	†	107.03
19	*	103.20	105.85	106.89
20	†	102.20	105.38	106.96
21	102.91	102.24	105.93	†
22	*102.97*	*	*105.21*	*106.64*
23	103.20	†	105.27	106.72
24	.....	101.40	*	107.66
25	.....	101.63	†	107.59
26	.....	102.34	105.03	108.02
27	.....	102.63	105.39	107.71
28	.....	102.71	105.46	†
29	.....	*	105.71	107.48
30	.....	†	104.91	*
31	.....	103.16		107.35

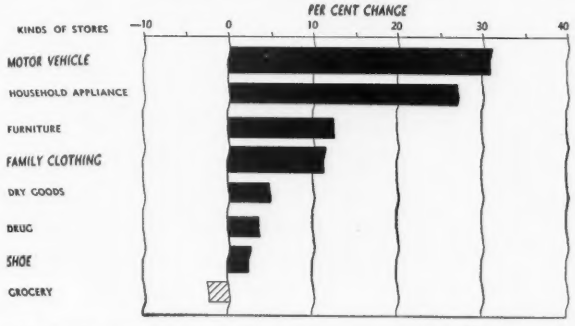
† Sunday. * Markets closed.

	High		Low	
1939	108.02	May 26	101.40	July 24
1938	117.06	Jan. 10	102.43	June 2
1937	158.26	Apr. 5	114.83	Dec. 30

THROUGH THE STATISTICIAN'S EYES

ODD AND INTERESTING ITEMS FROM THE MONTH'S RECORD

Sales in Independent Stores



PERCENTAGE CHANGES IN THE RETAIL SALES OF SEVERAL VARIETIES OF INDEPENDENT STORES—*June 1938 to June 1939—U. S. Department of Commerce—Practically all of the different kinds of independent stores in twenty-eight States reported increases in sales between June, 1938, and June, 1939; motor vehicle dealers showed the largest gain, while grocery stores (both with and without meats) registered a small decline.*

THE VOLUME of retail trade in June, 1939, was well ahead of June, 1938, according to a summary of retail sales in 21,649 independent stores in twenty-eight States which was issued recently by the U. S. Department of Commerce. The summary integrates the individual reports which customarily appear each month, and shows the total volume of retail sales and the percentage change from year to year by city size groups, by States, and by kinds of business.

According to the June announcement, dollar sales of independent retail stores were off 5.4 per cent from May, but were 8.9 per cent higher than last June. The year-to-year changes varied considerably among different kinds of businesses. Motor vehicle dealers reported an increase of 31 per cent over June, 1938, while sales in household appliance and furniture stores gained 27 and 12.4 per cent, respectively. Better-than-average increases also occurred in heating and plumbing shops, family clothing stores, jewelry stores, and among lumber and building material dealers.

The only decreases in dollar sales were reported by combination grocery and meat stores and by grocery stores (without meats), but even here the decreases averaged less than 2 per cent. Comparatively small increases of 2 per cent or less occurred among general stores, filling stations, florists, restaurants, and beer and liquor stores.

Gains in sales as compared with a year ago were recorded in all population groups. Cities of 50,000 to 100,000 population showed the largest gain, 10.9 per cent, over last June, while cities of over 100,000 averaged a 9.6 per cent increase, and areas with a population of less than 2,500 showed a sales rise of 4.1 per cent.

Farm Real Estate

DURING the twelve months ended March 1, 1939, the value of farm real estate showed a slight decline for the first time in six years, according to the U. S. Bureau of Agricultural Economics. On that date, the index of farm real estate values for the country as a whole was 84 per cent of the 1912-1914 level, as compared with 85 per cent in both 1937 and 1938. The chief factors in the decline were said to be the lower prices for farm products and the consequent reduction in farm income. The upward trend of farm taxes and extensive farm real estate holdings of financing institutions were also considered to be contributing factors.

Most sections of the country showed small declines from the 1938 level, according to preliminary figures, in line with the general average. The South Atlantic and Mountain areas, however, showed no change in their indexes, and real estate values advanced in the East South Central territory, marking the sixth consecutive year of increase in that group of States.

All parts of the country showed large declines in the value of farm real estate in comparison with the level of the early 'twenties. Since 1933, however, all sections except New England have improved considerably in this regard. Present levels are more than 30 per cent above 1933 in the East South Central and South Atlantic groups, 10 to 25 per cent above in the East North Central, West South Central, and Pacific States, and 5 to 10 per cent higher in the Middle Atlantic, Mountain, and West North Central sections. The New England, South Atlantic, East South Central, and Pacific areas in 1939 reported values for all farm lands and improvements higher than the pre-war base.

INDEXES OF FARM REAL ESTATE VALUES IN THE UNITED STATES—*1920-1939—1912-1914=100—U. S. Department of Agriculture—The value of all farm lands, including improvements, declined markedly between 1920 and 1933; from 1933 forward, the trend has been steadily upward until the current year, when a slight setback occurred.*

HERE *and* THERE *in* BUSINESS

WHAT'S NEW AS OBSERVED BY THE AGENCY'S REPORTERS

Crust—To keep the staff of life from growing moldy, chemical research has developed Mycoban, a product which delays the formation of mold on many common foodstuffs. The use of Mycoban maintains the fresh bloom of youth on a loaf of bread anywhere from two to fourteen days under even the worst Summer conditions.

Basically, the new mold-deterrent is an acid which occurs naturally as the result of bacterial action in the lactic acid of milk. Butter, buttermilk, acidophilus milk, and cheese all have it in minute amounts. In most cheeses however, the amount of this anti-mold, called propionic acid, is so small that mold growths have a gala time.

The stronger the concentration of propionic acid, or Mycoban, the longer it is before the mold family moves in. E. I. du Pont de Nemours & Company, which developed it, suggests amounts of from 0.1 per cent to 0.3 per cent, and gleefully lists butter, cheeses, cakes, pies, and jellies as some of the toothsome places where Mycoban should be.

Airflex—A clutch with a rubber surface, designed on the same squeegee tread principle which is used for automobile tires has been undergoing tests in such places as the Diesel engine of a Mississippi River towboat, and on oil well rigs. The narrow rubber ridges of the clutch surface squirm into serpentine form under pressure, doubling the friction co-efficient.

An affiliate of the General Tire and Rubber Company, Fawick General Company is introducing expanding and constricting models of the clutch under the trade name "Airflex."

Expanded—Five expansions in five years is the record of Monarch Tool Company, Sidney, Ohio, which now employs twice as many men as in 1929. The fifth expansion was a new factory and office building, recently opened.

Monarch's idea for a proper "factory-warming" was to hold open house. Management personalized intricate manufacturing operations for 10,000 visitors by placarding each machine with the name of its operator.

In the lathe manufacturing division of the plant, Monarch has introduced spray painting facilities which remove the usual fire hazard and danger from paint fumes. Painters work without booths, spray lathes which lie on the floor, over a grating. Air is constantly being sucked out through this grating, paint spray and fumes going with it.

Below the floor grate is a large tank, where a cascade of chemically treated water precipitates solids in the paint spray, transforming them into a rubbery substance which sinks.

OFFICE FURNITURE—*Designed for the modern building of S. C. Johnson and Son, Inc., Racine, Wis., by architect Frank Lloyd Wright; made by Metal Office Furniture Company, Grand Rapids, Mich., using Velmo fabric upholstery from L. C. Chase & Company, Sanford, Me. Office desks have three levels; chairs, three legs and movable backs.*

PRINTING CALCULATOR—*A new Remington Rand calcul does automatic direct division, multiplies, adds, subtra printing a proof and record of factors in all calcula*

Matches—People who try to strike book matches are frequently surprised these days. That little sandy band isn't always on the front, just below the flap, where life-time habit says it should be. About a year ago it slid around to the rear of the match book, where there's little chance anyone striking a light without closing the flap could fire all the unused matches.

For so simple a change the effect is startling—somewhat as if a postage stamp said "stop!" when you licked the back of George Washington's neck.

The idea of putting scratch bands on back of match books was brought up 25 years ago, but never became popular. Manufacturers who haven't taken up the revived back-strike idea are convinced people will light their matches on back of the book without turning it over to see the band. Striking a match carelessly on the underside of the book creates the danger that finger tips of the hand holding the match book could be burned. That, at least, is opposing opinion on the subject.

Meanwhile, in a comparatively few ten cent stores, monogrammed match books with the scratch band at the flattened, bottom end of the book are being sold as bridge party accessories. Sales are a test campaign to see if the public will pay for its book matches when they can get the other kinds free at an advertiser's expense.

Addresses—Letterheads of Van Auken-Ragland, Inc., help the conventional address with "at Madison Street."

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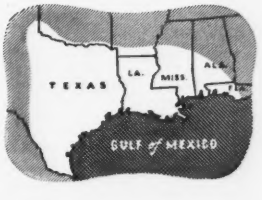
The *Gulf South*



Invites
Industry

★

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GOOD BUSINESS NEWS

ASSURED that OPEN ACCOUNT FINANCING was the easiest and soundest way to finance their business without increasing their capital investment, MAJOR MILLS, Inc.,* eliminated one stubborn problem by a simple change in method.

They changed from the Notice to Customers to the "NON-NOTIFICATION" Plan. Customers had objected to having a third party in every transaction—an outsider supervising credits, and making collections. Continuance of the former plan threatened the loss of some desirable accounts.

Investigation of our "NON-NOTIFICATION" Plan quickly led to its acceptance.

It restored to MAJOR MILLS, Inc. its proper function of passing on credits to customers.

It re-established the routine of having customers make direct payments on usual terms.

It eliminated red-tape, complications and delays. It eliminated outside interference with the operations of their business.

It enabled our client to expand through new outlets. By the end of the first year MAJOR MILLS, Inc. was able to show an increase in volume from an annual rate of $585,000 to better than $1,000,000.

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COMMERCIAL CREDIT COMPANY

"Non-Notification" Open Account Financing

BALTIMORE

BOSTON NEW YORK CHICAGO SAN FRANCISCO PORTLAND, ORE.

CAPITAL AND SURPLUS MORE THAN $65,000,000

MID-YEAR INVENTORIES

(Continued from page 13)

the summer seasonal drop in automobile makers' inventories brings them well below that bench-mark.

In the manufacturing field, the survey returns show a consistent tendency for a larger proportion of the big manufacturers to be reducing inventories than is common among small manufacturing outfits.

A three and one-half year review of inventories held by various important manufacturing industries has been converted to index form and charted (chart V). The pattern is strikingly different from the usual pattern of inventory trends among wholesale and retail trades. A much sharper peak at the beginning of 1938 is followed by a much more rapid descent from the dizzy summit. With the exception of the automobile industry, most of the industries producing heavy, durable goods followed about the same pattern of inventory trend.

Survey's Application

FROM the discussions of inventory problems and inventory control delivered by business men and management engineers at various conventions, it would appear that he who would control an inventory must be as wise as a serpent, as industrious as a beaver, and as well-informed as a buzzard.

First, he must establish in terms of basic policy the minimum inventory of specific lines or products necessary to serve customers satisfactorily in all reasonable contingencies and the maximum which it is safe and convenient to carry in relation to the sales flow and other current circumstances. Secondly, he must keep records which will tell promptly when the stock of any specific item steps outside these limits. Thirdly, he must be possessed of a mixture of unbiased judgment and current news which will enable him to distinguish between sound purchasing requirements and rationalized speculation.

Certainly no research worker's figures on the trend of inventories can provide any business man with the records or the judgment necessary to

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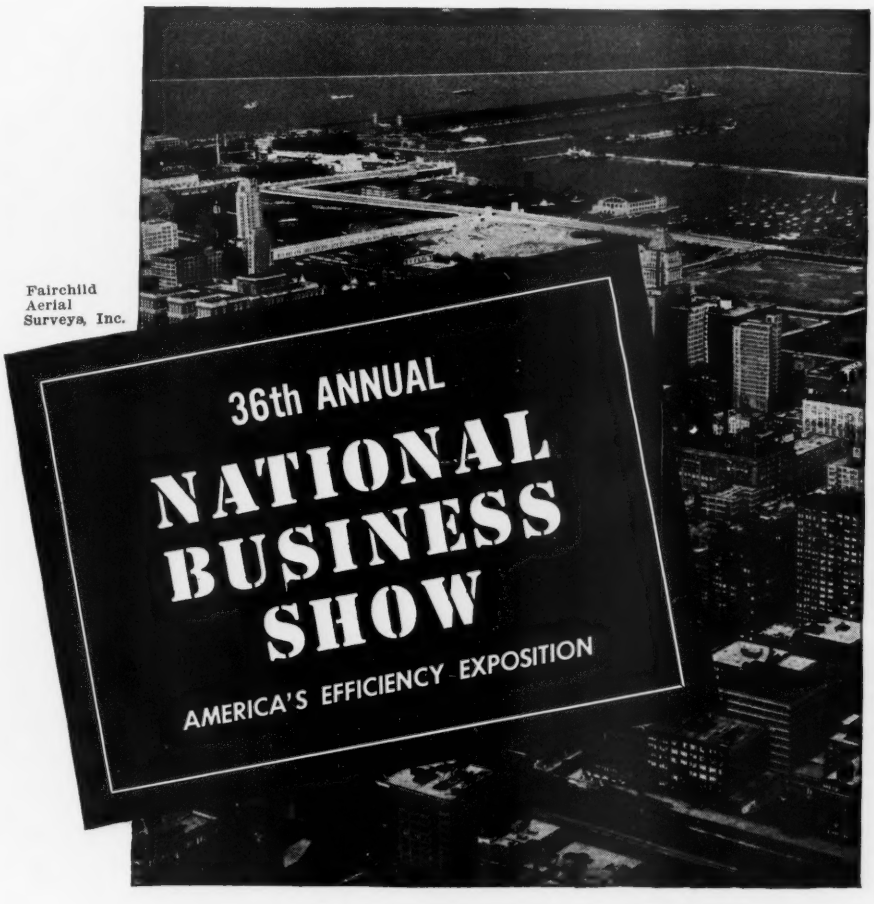

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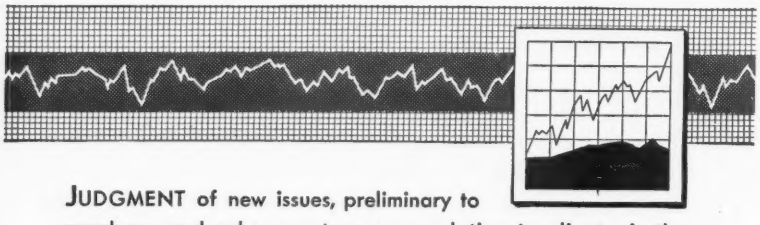
42.3% of the circulation is in companies rated over $125,000, offering exceptional coverage of the active concerns with substantial purchasing power.



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HALSEY, STUART & CO. INC.

fulfill these functions, and this survey is not made at frequent enough intervals to serve as a current news source. It does serve to show the business man that his colleagues and competitors have been more cautious in the past year than they were during the late, abortive prosperity. No highway surveyor ever projected the center line of the next section of road without taking a hindsight with his transit down the center of the road already laid out.

HOW DID BIG BUSINESS GET BIG?

(Continued from page 26)

if one can battle past the prejudices now attaching to the term, he may be willing to acknowledge an occasional glint of even brilliance in some of the shrewder integrations.

But after all we have had only two great waves of mergers, that running from about 1897 to 1903—which preceded the period over which Dr. Means measured the growth of concentration—and the more recent tidal wave which put its stamp on the last half of the decade of the Twenties. Dr. Rufus Tucker, contributing to a symposium conducted by the National Industrial Conference Board, stated that ". . . nearly all the giants that represent the merger of previously competing concerns originated during stock market booms, especially in 1899, 1901-1903, 1906, 1920, and 1927-1929."[12]

At the present time, by virtue of stock market apathy, governmental hostility, and a cyclical recovery of perspective in business itself, the latest movement is generally regarded as being largely spent. Nevertheless, the Federal Trade Commission felt that in the official actions it had been obliged to take since so recent a date as 1930, it had grounds for painting an alarming picture for the edification of the Temporary National Economic Committee.[13] Its principal concern at the moment happened to be over stock acquisitions, usually involving the absorption of relatively small companies by very large companies, which it felt had been put

[12] "The Growth of Large Corporations and the Formation of Capital," *Capital Formation and Its Elements*, National Industrial Conference Board, Inc., 1939.

[13] "Report of Federal Trade Commission to the Temporary National Economic Committee. Re: Monopolistic Practice in Industries," Exhibit No. 308, March 30, 1939.

beyond its official reach by judicial construction of Section 7 of the Clayton Act. The 121 instances of such acquisition that it reported to the Committee combined total assets in the acquiring companies of approximately $8,000,000,000 and in the acquired companies of $600,000,000.

It should be made part of the record perhaps that mergers occur among every class, size, and condition of concern, not merely giants. From a simple numerical standpoint, more small and middle-sized concerns are ordinarily involved than large ones. But when small concerns merge they do nothing to the statistics on concentration. United or single, they remain a nameless part of the "all corporations" universe, with which "giants," a race apart within the same universe, are habitually compared.

New Mood

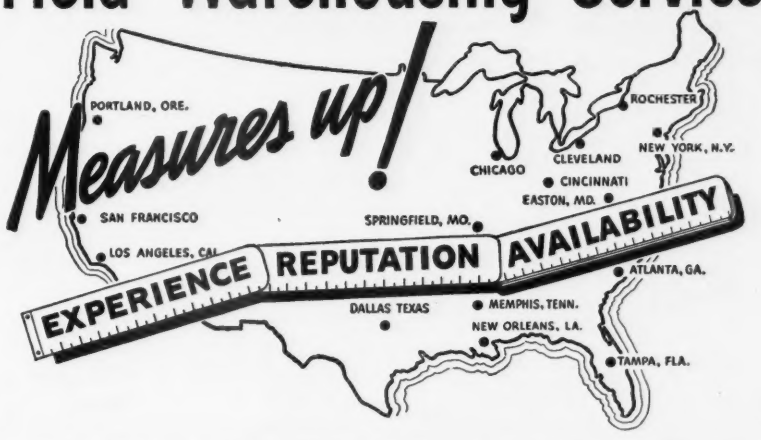
It should also be noted, however, that here and there are signs of a counter wave of more careful cost and engineering analyses of the true sources of profit and loss in some of our modern far-flung empires, thus establishing at least the basis for a trend reversal. The recent much-talked-of articles in the magazine *Fortune*[14] on the probable benefits to business of unwinding itself, are illustrative of a new mood of inquiry that seems to attract many more executives and to offend fewer than would have been possible before 1930.

The generality which all this leaves us is that whenever business has gotten into a merging frenzy, for good or bad reasons, concentration has increased. At least statistical injury is thereby done not only to the general mass of corporations but also to the great body of progressive non-giants who may hold one of the keys to our future. It is plain from Dr. Means' figures that the rate of increase in concentration was nothing less than spectacular through the years 1925 to 1929. In fact, it dominated his whole table. This spasm was fed by mergers and heavy financing, which are in some degree, of course, overlapping.

Many observers therefore see as one of the principal modern issues that of finding a serum to control the merger bug. A more practical phrasing of their objective might be to require more spe-

[14] March and April, 1938.

Douglas Guardian
Field Warehousing Service



One of the significant current trends in financing is the rapid acceptance of Field Warehousing. It's so *logical* to raise needed capital by releasing money tied up in inventory ONE WORD of CAUTION: Look for experience and stability in your Field Warehousing connection. Douglas-Guardian facilities have been expanded soundly and conservatively to meet the increasing demand for our Service. We measure up.

EXPERIENCE The heads of our company have had over 16 years' experience. We have grown as the Field Warehousing idea has taken hold.

REPUTATION We refer you to the banks and businesses who *use* our service. We hold our old customers, and constantly make new.

AVAILABILITY Through 15 strategically located offices, we render a *nation-wide* service. We go everywhere for business, so why experiment or take chances.

We would welcome the opportunity to present the proof that our qualifications *measure up,* and go into details concerning your specific need for money and how readily you can get it by using inventory as collateral, through Field Warehousing by Douglas-Guardian.

Write for FREE copy of our Booklet on Field Warehousing.

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Please send us your booklet "Financing the Modern Way"
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Address.....
City..... State.....
Signed.....

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Nation-Wide Field Warehousing Service
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Regional Service Offices at
New York, N. Y. Rochester, N. Y. Easton, Md. Los Angeles, Cal. Cincinnati, O.
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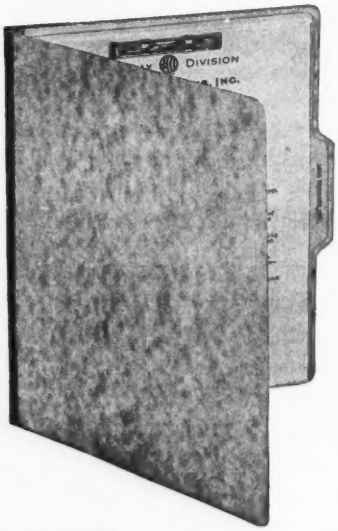

ACCO PRODUCTS, INC.
39th Avenue & 24th Street
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cific proofs of public advantage on a case-by-case basis. The formulation of such standards has been urged by variegated groups ranging from academic reformers to the United States Chamber of Commerce, and the coincidence does not lose all value merely because the different groups may be moving from different motives and concepts. Most advocates of such an approach could not be held unconcerned over the threats of monopoly or of further abuses of corporate power. They would merely be deciding that in mergers and in reckless financing, a major risk of undue aggrandizement lies.

Financing

It is a matter of public record that most of the public offerings of securities have been made by concerns which in wealth and prestige easily attract the investor's eye. The heavy part played by the unequal distribution of new money in stimulating the great corporate growth of the two principal speculative periods has been recounted.

Its 1925-1929 performance has been summarized by Dr. Rufus S. Tucker, who, in his contribution to the aforementioned National Industrial Conference Board Symposium, considered that "it was . . . easy for corporations whose stock was rising rapidly in the market, and for large corporations newly organized along similar lines, to float large issues of stocks and bonds and to increase their relative importance as compared with small corporations or privately-owned concerns that had no access to the organized securities markets." This is a judgment on one of those exciting periods which always evoke judgments. There is also a great deal of sober opinion holding that financing inequalities are making their mark in quiet times as well.

It is not to be thought that smaller concerns do not also expand through financing when able, but their ability as a class to do so is manifestly less. According to Joseph L. Nicholson, "an examination of statements listed by the Securities and Exchange Commission for the first six months of 1937 for firms seeking capital of under $100,000 revealed a cost of approximately 30 per cent. . . . Even with the high commission allowed the underwriters, 30 per cent of the 483 smaller security issues registered with the Securities and Exchange Commission since 1933 could not be sold at all. A large percentage of the remaining issues were only partially sold. The result was that the companies not only did not get their needed funds but were out the registration costs as well."[15]

The Securities and Exchange Commission itself recently announced[16] that small unseasoned issuers to the number of 584 who registered $321,000,000 of securities with the Commission between July 7, 1933, and June 30, 1937, succeeded in selling, within a year from registration dates, only 23 per cent of the securities registered.

Peter R. Nehemkis, Jr., special counsel to the SEC, recently remarked[17] that according to an SEC survey made last spring, "venture capital was not in any appreciable volume finding its way into the small business sector of our economy." He further pointed out that since commercial banks generally regard loans for more than one year as capital loans, and are on the whole reluctant to use their depositors' money for the making of capital loans, the small business man, when he is able to obtain bank credit at all, must resort to the 60-90 day loan for his capital requirements, obviously a dangerous practice. If the Securities Act of 1933 has operated to impose disproportionately heavy burdens on smaller concerns, as is frequently charged, their natural disadvantage would be increased.

Even so, and unfortunately, there are no reliable measures of the actual volume of private financing by which the mass of business concerns is kept afloat. Such transactions still belong to the welter of personal relationships which no combination of statistical springs and dials has so far proved delicate enough to record. And the fact must also be registered that the stream of new enterprises still freshening our economy must be entered under the heading of "new capital" for the "all corporations" category in this kind of argument. The net of it all seems likely to be, first, that on all visible counts the giants can finance legitimate needs more easily, and are also more

[15] "The Fallacy of Easy Money for the Small Business," *Harvard Business Review*, Autumn, 1938.

[16] Securities and Exchange Commission Release No. 276, Statistical Series (Selected Statistics on Securities and on Exchange Markets, Part III), June 28, 1939.

[17] In an address delivered before the Junior Board of Commerce, Washington, D. C., August 3, 1939.

frequently tempted to over-expand; second, that in the nether world of personal finance ordinary corporations and people are supplied with funds to an extent that must be substantial but cannot actually be known; and third, that it seems safe to assume that the advantage lies heavily with those which have already won public recognition.

A far more tangible comment on existing discrepancies is the effort currently being made to have the Federal Government assume the rôle of either banker or sponsor for small businesses seeking capital. The Temporary National Economic Committee hearings during the week of May 22 resounded with pleas to this effect, offered both by and in the name of this class of entrepreneur. A bevy of small and middle-sized business men testified to years of successful operation now threatened with frustration by a want of capital that normal private reservoirs were not set up to supply.

SEC Chairman Jerome Frank recently told a Senate Banking and Currency committee that "the overhead cost of marketing an issue of $1,000,000 or less to the public through investment bankers makes the cost of the money prohibitive." Ernest G. Draper testified at the same time that while he was Assistant Secretary of Commerce he examined some 4,500 complaints of small business men of their inability to borrow capital, and felt that at least 1,000 of these proved that they had a good case. The pending Mead Bill would carry into the field of action some of these current exhortations concerning the financial needs of small business.

Against all this drum beating in behalf of underprivileged corporations is heard at longer intervals the booming denial of bankers that reasonable needs for financial assistance go unsatisfied. So stated, however, the issues pass each other. Most of the serious controversy seems to swirl over intermediate and long-term forms of credit, which commercial banks did not extend until three or four years ago, which they are now cautiously extending to outstanding applicants under the style of term loans, and which are not sufficiently large to repay the cost of public flotation. Another important aspect of the issue seems to be that much of the demand is not for easier credit, but for risk capital, which entangles us promptly with other and semi-political issues, such as taxes, regulation, and confidence.

The level at which most of the current argument is pitched is that of personal justice for small and middle-sized business men. By some the problem of economic balance for a teetering nation is also believed to be involved. In both relationships industrial "concentration" appears once again as a catalytic agent in the chemistry of law making, not here at least because of its operating failures or political impropriety but because of its excessive fascination for the capital markets.

Reinvestment and Earnings?

In this article the pace of concentration by selected periods since the Civil War—analyzed statistically in the May Dun's Review—has been related to the major factors making for concentration. These have been identified as mergers, financing, and reinvestment of earnings. The part played by mergers and financing has been discussed in these pages. Relative reinvestment of earnings by large and small corporations, and its inevitable corollary, relative earnings themselves, present oddly contradictory aspects warranting more delicate treatment. That bit of surgery will be attempted in a subsequent issue.

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JUDGING THE MARKET

HE owned the only two motion picture theaters in a small town in the South, but was losing money. He closed the smaller 15-cent one, and still lost on his 25-cent house. He heard that a new theater operator was about to invade his territory, so decided to frighten him off by lowering his best theater admission to 15 cents and re-opening the smaller house at 10 cents. The competitor never came, but the two theaters have been running busily for two years at the new low prices and—he is now making money.

Sometimes business loss is due merely to a failure to judge the market correctly—and usually the failure is in not realizing that a sufficiently larger volume may result from lower prices to change the results from red to black.

Willard L. Thorp.

EDITOR